JVC

No. 5550
JUly 1984

Service Manual
Manuel de Service
Service-Handbuch

COLOR VIDEO CAMERA
CAMERA COULEUR VIDEO
FARB-VIDEO KAMERA

MODEL/MODELE/MODELL

GX-N7E

* This Service Manual is prepared in the three languages (English, French and German).

* CONTENTS
- INSTRUCTION BOOK
- INTRODUCTION AND REPAIR SERVICE
- ADJUSTMENT
- PARTS LIST
- STANDARD CIRCUIT DIAGRAM

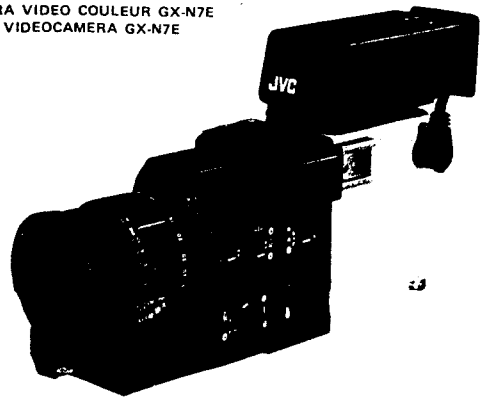
* TABLE DES MATIERES
- MANUEL D'INSTRUCTIONS
- INTRODUCTION ET SERVICE DE REPARATION
- AJUSTMENT
- LISTE DES PIECES DE RECHANGE
- SCHEMA DE CIRCUIT STANDARD

* INHALTSVERZEICHNIS
- BEDIENUNGSANLEITUNG
- EINFÜHRUNG UND REPARATUREN
- EINSTELLUNG
- STANDARD-SCHALTUNGSDIAGRAMM

JVC Instruction Book

COLOUR VIDEO CAMERA
GX-N7E

BEDIENUNGSANLEITUNG: FARB-VIDEOKAMERA GX-N7E
MANUEL D'INSTRUCTIONS: CAMERA VIDEO COULEUR GX-N7E
GEBRUIKSAANWIJZING: KLEUREN VIDEOCAMERA GX-N7E



This instruction book is divided into four sections, English, French, German and Dutch:

- English ..... Pages 1E – 17E
- German ..... Pages 1G – 17G
- French ..... Pages 1F – 17F
- Dutch ..... Pages 1NL – 17NL

Diese Bedienungsanleitung ist in vier Fassungen, eine englische, französische, deutsche und holländische, gegliedert:

- Englisch ..... Seite 1E – 17E
- Deutsch ..... Seite 1G – 17G
- Französisch ..... Seite 1F – 17F
- Holländisch ..... Seite 1NL – 17NL

Ce manuel d'instructions est divisé en quatre sections: Anglais, Français, Allemand et Hollandais.

- Anglais ..... Pages 1E – 17E
- Allemand ..... Pages 1G – 17G
- Français ..... Pages 1F – 17F
- Hollandais ..... Pages 1NL – 17NL

Deze gebruiksaanwijzing is verdeeld in vier delen, te weten Engels, Grans, Duits en Nederlands:

- Engels ..... Plz. 1E – 17E
- Duits ..... Plz. 1G – 17G
- Frans ..... Plz. 1F – 17F
- Nederlands ..... Plz. 1NL – 17NL

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

To prevent electric shocks and fire hazards, do NOT use other than specified power source.

CAUTION

To prevent electric shock, do not disassemble the camera. No user-serviceable parts inside. Refer servicing to qualified service personnel.

VIDEO STANDARD

This camera GX-N7E is designed to produce a PAL type video signal. Equipment using standards other than PAL cannot be connected with this camera. Inquiries on any difficulties concerning connection and use of related VTR units should be forwarded to a JVC Authorized Service Station or JVC Service Dept.

When using the camera to record important events such as weddings, be sure to make a test recording first to check that the picture and sound are recorded normally. In this way you will not be let down by your camera, recorder or video tape when the chance to record the event will never be repeated.

Thank you for purchasing this JVC Colour Video Camera. To obtain the best results from your GX-N7E, read this instruction book carefully before use; after reading it, retain it for future reference.

CONTENTS

FEATURES 2E
PRECAUTIONS 2E
NAMES OF PARTS 3E
HOW TO SET UP THE CAMERA 4E
[1] HOW TO INSTALL THE MICROPHONE 4E
[2] HOW TO INSTALL THE VIEWFINDER, ADJUST ITS POSITION AND ENLARGE THE IMAGE ON ITS SCREEN 4E
[3] HOW TO ADJUST THE GRIP BAND 5E
[4] HOW TO INSTALL THE CAMERA CABLE .. 5E
HOW TO CONNECT TO A VTR 6E
[1] WHEN THE VTR HAS A CAMERA CONNECTION TERMINAL 6E
[2] WHEN THE VTR DOES NOT HAVE A CAMERA CONNECTION TERMINAL 6E
[3] HOW TO USE THE STEREO/MONO SWITCH 7E
[4] HOW TO USE THE POLARITY SWITCH ... 7E
HOW TO OPERATE THE VIDEO CAMERA 8E
[1] HOW TO SUPPLY POWER 8E
[2] HOW TO USE THE IRIS CONTROL SWITCH 8E
[3] HOW TO USE THE BLC (BACKLIGHT COMPENSATION) SWITCH 9E
[4] HOW TO USE THE FOCUS SWITCH..... 9E
[5] HOW TO OPERATE THE WHITE BALANCE SWITCH 10E
[6] ZOOMING OPERATION 12E
[7] HOW TO RECORD WITH A VTR 12E
VIEWFINDER INDICATORS 13E
OTHER OPERATIONS 14E
[1] HOW TO OPERATE THE FADER BUTTON 14E
[2] HOW TO OPERATE THE MACRO FACILITY 14E
[3] USING AN EXTERNAL MICROPHONE 15E
[4] HOW TO MOUNT AND DEMOUNT LENSES . 15E
SPECIFICATIONS 17E

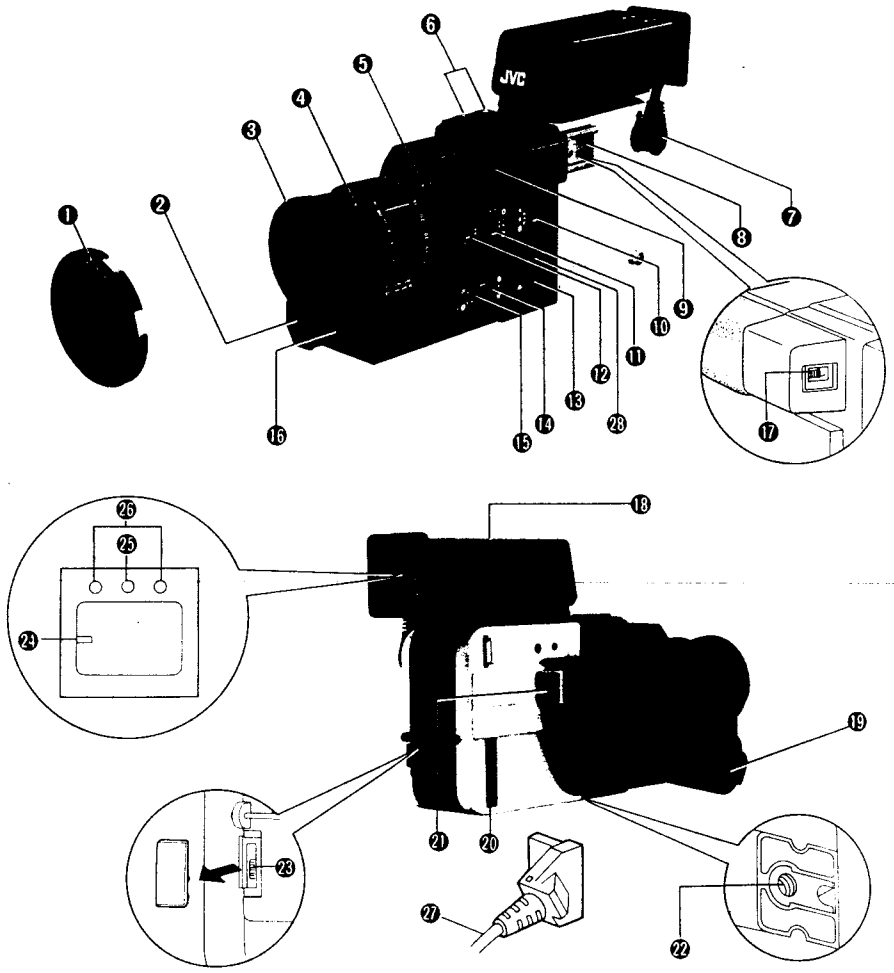
FEATURES

- Minimum illumination of 10 lux of subject being shot.
- Parallax-free semi-TTL Active Infrared Auto-Focus system.
- Auto Colour Tracking (ACT) white balance adjustment.
- Auto Iris Control, 6:1, power zoom lens with Macro function.
- Special bayonet lens mount
  Interchangeable with lenses for SLR (single lens reflex) cameras using optional mount adaptors.

PRECAUTIONS

- Do not aim the camera lens at extremely bright objects such as the sun or other strong light sources even when not in use or switched off as well as during shooting or recording. Incorrect use could damage the pickup tube. Always be sure to keep the lens capped except during shooting.
- Do not shoot luminous bodies such as metal objects, etc. which reflect light, as this can result in not only bad pictures but damage, etc.
- Select a light which generates less heat and prevent its beam from shining directly on the camera. Otherwise heat from the light may deform the camera body or components, or cause malfunctioning.
- Apply power and operate the camera 1 or 2 hours every 6 months. The pickup tube will lose efficiency with age if the camera is not used for too long time.
- Do not disassemble any part of the camera; high voltages are developed in some parts of the camera and it is dangerous to touch them because of the possibility of electric shock.
- Do not allow inflammable objects, metal objects or water to get inside the camera, as these can cause damage or malfunctioning.
- Do not try to tighten or loosen the screws in the several servicing holes of the camera body and viewfinder. These are only for experienced service personnel.
- Avoid using the camera in places where it is excessively hot, humid or cold or where there are strong electric waves and magnetic fields which can create electrical noise, or where it is liable to catch fire. Be careful not to subject the camera to excessive shock or vibration, as these could cause distorted pictures, damage or malfunctioning.
- Do not leave the camera inside a parked car as the temperature can become extremely high when exposed directly to the sun with the doors shut. This can cause plastic parts to be deformed and result in malfunctioning.

NAMES OF PARTS



❶ Lens cap
❷ Colour temperature sensor window
❸ Lens hood
❹ Focus ring
❺ Zoom lever
❻ Zoom buttons
❼ Viewfinder connector
❽ Accessory shoe
❾ Microphone
❿ WHITE BALANCE switch
⓫ Focus switch
⓬ BLC (backlight compensation) switch
⓭ FADER button
⓮ IRIS CONTROL knob
⓯ IRIS CONTROL switch
⓰ Infrared receiver
⓱ STEREO/MONO switch
⓲ Viewfinder
⓳ Grip band
⓴ Camera cable socket
㉑ VTR START/STOP button
㉒ Tripod mounting hole
㉓ VTR POLARITY switch
㉔ EXPOSURE indicator
㉕ VTR START/TAPE-END ALARM indicator (red)
㉖ WHITE BALANCE setting/ BATTERY warning indicators (green and yellow)
㉗ Camera cable
㉘ POWER button

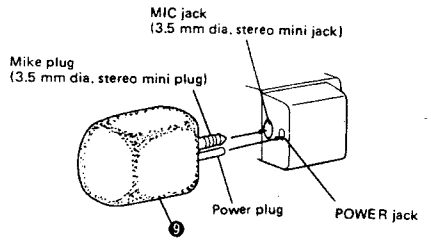
HOW TO SET UP THE CAMERA

1 HOW TO INSTALL THE MICROPHONE

Insert the mike plug of provided mike ⑨ into the MIC jack, and insert the power plug into the POWER jack at the same time.

Notes:

- Confirm that provided mike ⑨ is fully inserted.
- The power jack is exclusively for use with provided mike ⑨; do not insert other plugs into it.

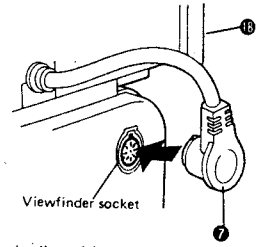


2 HOW TO INSTALL THE VIEWFINDER, ADJUST ITS POSITION AND ENLARGE THE IMAGE ON ITS SCREEN

■ How to Install Viewfinder ⑱

First align the key (⏃) in viewfinder connector ⑦ with the groove (⏄) in the viewfinder socket, and then plug connector ⑦ into the socket.

Note: Confirm that viewfinder connector ⑦ is fully plugged into the socket.

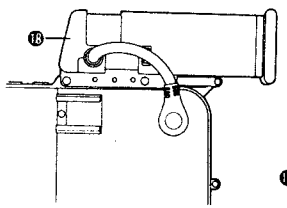


■ How to Adjust the Position of Viewfinder ⑱

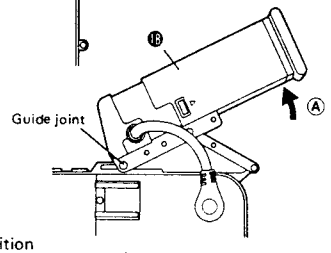
For easier and more enjoyable on-the-spot shooting, viewfinder ⑱ is designed to operate in three different positions by moving and rotating it: parallel (standard), inclined and at right-angles.

- To move viewfinder ⑱ to the inclined position from the parallel position.
  ① Lift the viewfinder ⑱ neck in the direction of arrow Ⓐ until the viewfinder is firmly locked.
  Note: Push the screen end in the opposite direction of arrow Ⓐ to put it back to the parallel position from the inclined position.
- To move viewfinder ⑱ to the right-angle position from the inclined position.
  ① Slide the viewfinder ⑱ guide joint in the direction of arrow Ⓑ and remove it from the viewfinder guide.
  ② Rotate viewfinder ⑱ in the direction of arrow Ⓒ, and press it on the rear of the camera until it is firmly locked.
  Note: In order to move viewfinder ⑱ from the right-angle position to the inclined position, pull the screen end in the opposite direction of arrow Ⓒ to release the lock, and rotate the viewfinder to the top of the camera. Finally, insert the viewfinder's joint into the guide until the viewfinder is firmly locked.

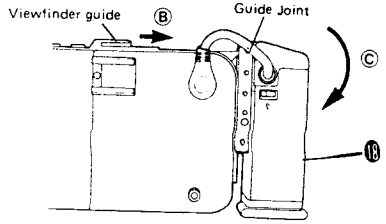
Parallel (standard) position



Inclined position



Right-angle position

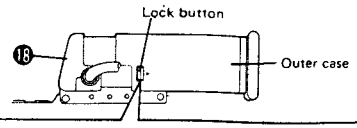


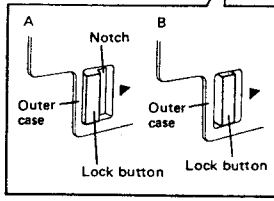
Be sure to operate the camera with viewfinder ⑱ firmly locked in one of the three positions. Never leave the viewfinder between these positions.

■ HOW TO MAGNIFY THE IMAGE ON THE VIEWFINDER'S SCREEN

Slide the viewfinder ⑱ outer case in the direction of the arrow until it clicks into its locked position to magnify the image on the viewfinder's screen.

Note: To bring the outer case back to the original position, press the lock button in and slide the case in the opposite direction of the arrow until the case stops at its original position.





- Set the outer case to the A or B position for the best viewability.

A position:
Pull the outer case in the direction of the arrow as far as it goes.

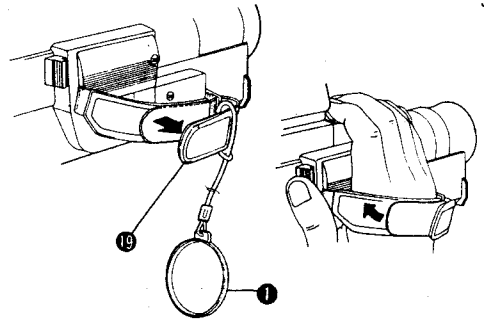
B position:
Hold the lock button in, and pull the outer case back slightly, into the notch of the button.

3 HOW TO ADJUST THE GRIP BAND

① Detach the end of grip band ⑲ from the end fixed to the camera, and loosen the band.
② With your right hand inside grip band ⑲, pull the end to the left to tighten it, and then press the Velcro pieces together.

Notes:

- Confirm that the Velcro pieces are together firmly.
- Looping the lens cap ❶ string around the grip band ⑲ facilitates uncapping and capping the lens.



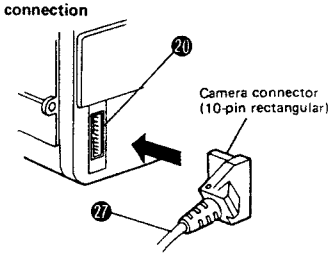
4 HOW TO INSTALL THE CAMERA CABLE

① Align the key (⏃) on the camera connector of provided camera cable ㉗ with the groove (⏄) in the camera cable socket ⑳
② Insert the connector into the socket ⑳.

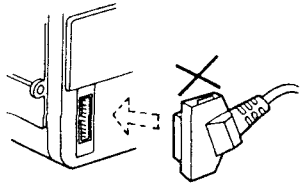
Note: Never attempt to force the 10-pin rectangular camera connector of provided camera cable ㉗ into the camera cable socket when the connector is positioned upside down.

- When removing the camera connector, remove by gripping the camera connector, not the cable.

Proper connection



Improper connection

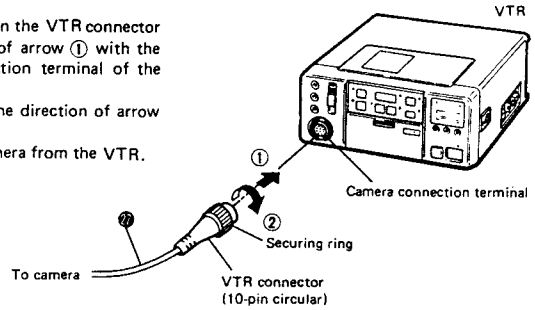


HOW TO CONNECT TO A VTR

- Do not switch the camera and VTR on before connecting to the VTR.
- Refer to the instruction manual of the VTR and other components to be connected.

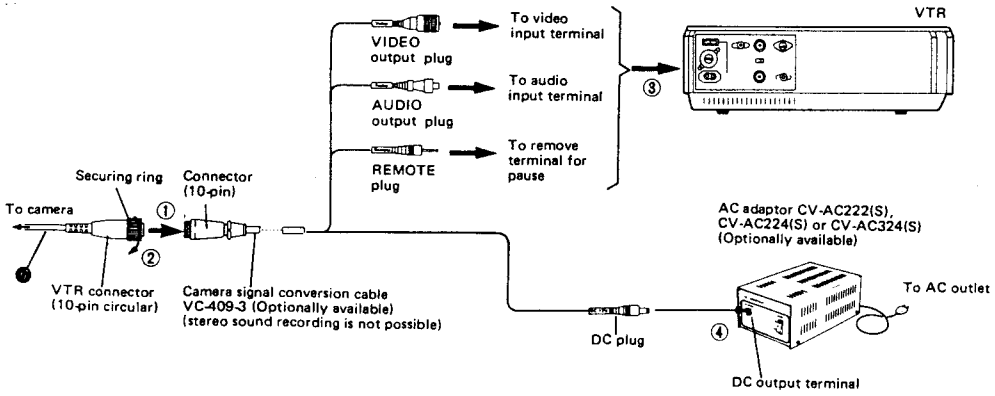
1 WHEN THE VTR HAS A CAMERA CONNECTION TERMINAL

① Insert matching the groove (⊔) in the VTR connector (10-pin circular) in the direction of arrow ① with the key (⊓) in the camera connection terminal of the VTR body.
② Secure by tightening the ring in the direction of arrow ②.
Note: Power is supplied to the camera from the VTR.



2 WHEN THE VTR DOES NOT HAVE A CAMERA CONNECTION TERMINAL

① Insert matching the groove (⊔) in the VTR connector of provided camera cable ⑫ in the direction of arrow ① with the key (⊓) in the connector of camera conversion cable VC-409-3 (optional).
② Secure by tightening the ring in the direction of arrow ②.
③ Connect the plugs of the camera conversion cable to the recorder's remote, video input and audio input terminals. (See arrow ③)
④ Connect the DC plug of the camera conversion cable to the DC output terminal of the optional AC adaptor (CV-AC222(S), CV-AC224(S) or CV-AC324(S)). (See arrow ④)
Notes:
- Power to the camera is supplied from the AC adaptor.
- Also refer to the AC adaptor's instruction manual.

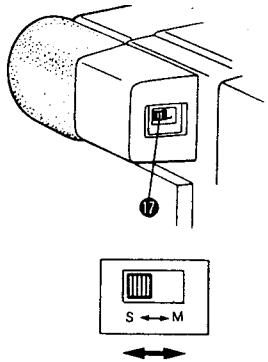


3 HOW TO USE THE STEREO/MONO SWITCH

With a stereo mike, set STEREO/MONO switch ⑰ to the STEREO position when the VTR is capable of stereo recording, and set it to the MONO position when the VTR is monaural.
Notes:
- Provided mike ⑨ is stereo.
- With a mono mike, it is only possible to make monaural recordings.

Position S: Set switch ⑰ to this position when the VTR is capable of stereo recording. Stereo sound can be recorded by keeping the VTR in the STEREO recording mode.
(The switch should be set to this position when using the provided stereo microphone.)

Position M: When the VTR is mono, set STEREO/MONO switch ⑰ to this position.
(The switch should be set to this position when using a monaural microphone.)

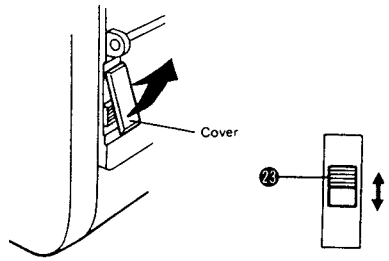


4 HOW TO USE THE POLARITY SWITCH

Set POLARITY switch ㉓ to the other position when the VTR start indicator ㉕ operates with the opposite polarity. (See page 13E for more information on the VTR start indicator ㉕).

① Remove the polarity switch cover.
② Set POLARITY switch ㉓ to the other position.

Upper position : The camera is delivered with the switch in this "preset" position.
Lower position : Opposite polarity.



HOW TO OPERATE THE VIDEO CAMERA

1 HOW TO SUPPLY POWER

- When connected to a VTR with a camera connection terminal. (See 1 WHEN THE VTR HAS A CAMERA CONNECTION TERMINAL in "HOW TO CONNECT TO A VTR" section on page 6E.)
  Power is supplied to the camera when the VTR is switched on.
- When connected to a VTR with no camera connection terminal. (See page 6E.)

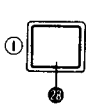
  Power is supplied to the camera when the AC adaptor is switched on.

Notes:

- Power supply to the camera may be different according to the type of VTR connected. Refer to the VTR's instruction manual for details.
- Be sure to remove the lens cap ❶ only after supplying power to the camera, and do not forget to switch off the power supply after replacing the cap. Do not aim the lens directly at the sun or other strong light sources. Incorrect use could damage the pickup tube.

■ When connected to JVC compact VTR HR-C3.

In this case, it is possible to switch the VTR on from the camera.



① Push POWER button ㉘ to switch the VTR on.
② Push it again to switch the VTR off.
Power is supplied to the camera when the VTR is switched on.

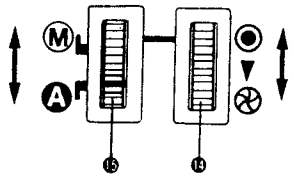
Note: Switching the VTR on from the camera is possible only when connected to JVC compact VTR HR-C3.

2 HOW TO USE THE IRIS CONTROL SWITCH

For standard shooting, set IRIS CONTROL switch ⑮ to position Ⓐ

Position Ⓐ: Set switch ⑮ to this position to select the AUTO IRIS control mode. The iris is automatically adjusted according to the brightness of the scene.

Position Ⓜ: Set IRIS CONTROL switch ⑮ to this position to select the manual IRIS CONTROL mode. Then turn IRIS CONTROL knob ⑭ in either direction (Refer to the following description of IRIS CONTROL knob ⑭) to adjust the iris manually.



Using IRIS CONTROL knob ⑭

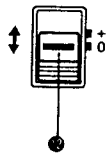
● **side** : Turn IRIS CONTROL knob ⑭ in direction ● to make the picture brighter (by opening the aperture).

⊗ **side** : Turn IRIS CONTROL knob ⑭ in direction ⊗ to make the picture darker (by closing the aperture).

Note: IRIS CONTROL knob ⑭ operates only when IRIS CONTROL switch ⑮ is set to position Ⓜ.

3 HOW TO USE THE BLC (BACKLIGHT COMPENSATION) SWITCH

For standard shooting, set BLC (backlight compensation) switch ⑫ to position "0".



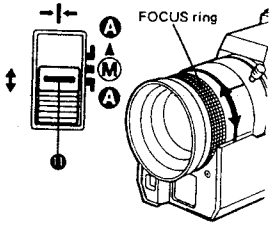
Position + : Set BLC switch ⑫ to the "+" position to allow the iris to open by approximately 1/2 an f-stop above the standard AUTO IRIS setting. Use this function when the subject is too dark and the background is too bright.

Position 0 : Set BLC switch ⑫ to the "0" position to release the BLC function or restore the standard AUTO IRIS CONTROL function.

Note: BLC switch ⑫ can operate, only when IRIS CONTROL switch ⑮ is set to position Ⓐ.

4 HOW TO USE THE FOCUS SWITCH

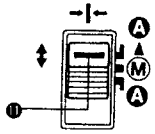
For standard shooting, set FOCUS switch ⑪ to position Ⓐ.



Lower position Ⓐ : Set FOCUS switch ⑪ to this position to focus automatically.

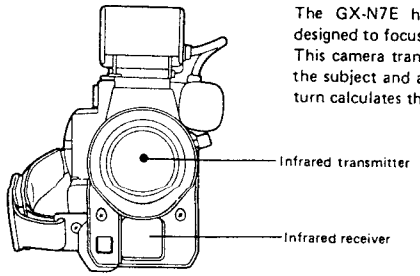
Manual position Ⓜ : Set FOCUS switch ⑪ to this position to focus manually, and then turn focus ring ④ to bring the subject into focus.

■ How to Operate POWER FOCUSING



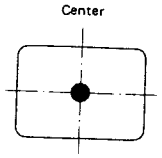
Upper position Ⓐ : ① Hold FOCUS switch ⑪ pushed up in this position for POWER FOCUSING (instant auto focusing).
② Release switch ⑪ to return to MANUAL FOCUSING. After releasing switch ⑪ it will return automatically to its manual position Ⓜ.

■ How the Auto-Focus System Operates



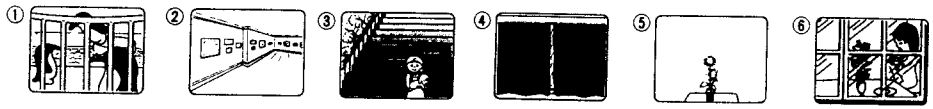
The GX-N7E has a semi-TTL (through-the-lens) active infrared auto focus system designed to focus on the subject automatically.
This camera transmits infrared rays from just above the center of the lens. These rays hit the subject and are reflected to the infrared receiver on the front of the camera which in turn calculates the optimum focus automatically.

Important Points in Shooting



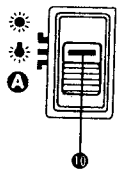
- The camera is designed to focus on the subject in the center of the field of view.
- The subject must be more than 10 centimeters (4 inches) across when 3 meters (10 feet) away from the camera for correct operation of the auto-focus system.
- The camera does not focus correctly when the MACRO function is used.
- While using AUTO FOCUS, be careful not to touch the focus ring or cover the infrared transmitter/receiver to avoid malfocusing.
- AUTO FOCUS works correctly with almost every type of subject; manual focusing is recommended, however, when optimum focus cannot be obtained by using the AUTO FOCUS. Examples of scenes with which AUTO FOCUS may not be correct are shown in ① – ⑥ below.

① When both close and distant objects are required to be in focus.
② When close and distant objects form a continuous perspective.
③ When the subject is a pattern of narrow horizontal stripes.
④ When the subject does not reflect light (i.e. a black curtain or water).
⑤ When the subject is too small.
⑥ When the subject is behind a glass window or screen.



5 HOW TO OPERATE THE WHITE BALANCE SWITCH

For standard shooting, set WHITE BALANCE switch ⑩ to position Ⓐ.



☀ **position** : Set WHITE BALANCE switch ⑩ to this position for outdoor shooting; At this setting, the colour temperature is about 5,500 K (natural light).

☀ **position** : Set WHITE BALANCE switch ⑩ to this position for indoor shooting; At this setting, the colour temperature is about 3,200 K (artificial light).

Ⓐ **position** : Set WHITE BALANCE switch ⑩ to this position for AUTO COLOUR TRACKING. The AUTO COLOUR TRACKING system is designed to automatically adjust the white balance by letting the built-in colour temperature sensor window sense and track changes in colour temperature. Colour temperature compensation in this system ranges from about 2,800 K to 10,000 K.

Notes:

- Do not touch or cover the colour temperature sensor window when the AUTO COLOUR TRACKING system is operating.
- When only the subject is brightly illuminated and where you are situated with the camera for shooting the scene is somewhat darker, or when shooting under special lighting such as mercury lamps, sodium lamps or stage-lighting, white balance must be adjusted more accurately since there exists a mixture of colour temperatures. In such cases, reset the white balance switch to the ☀ (or ☀) position; better white balance may be attained than with the switch set to Ⓐ

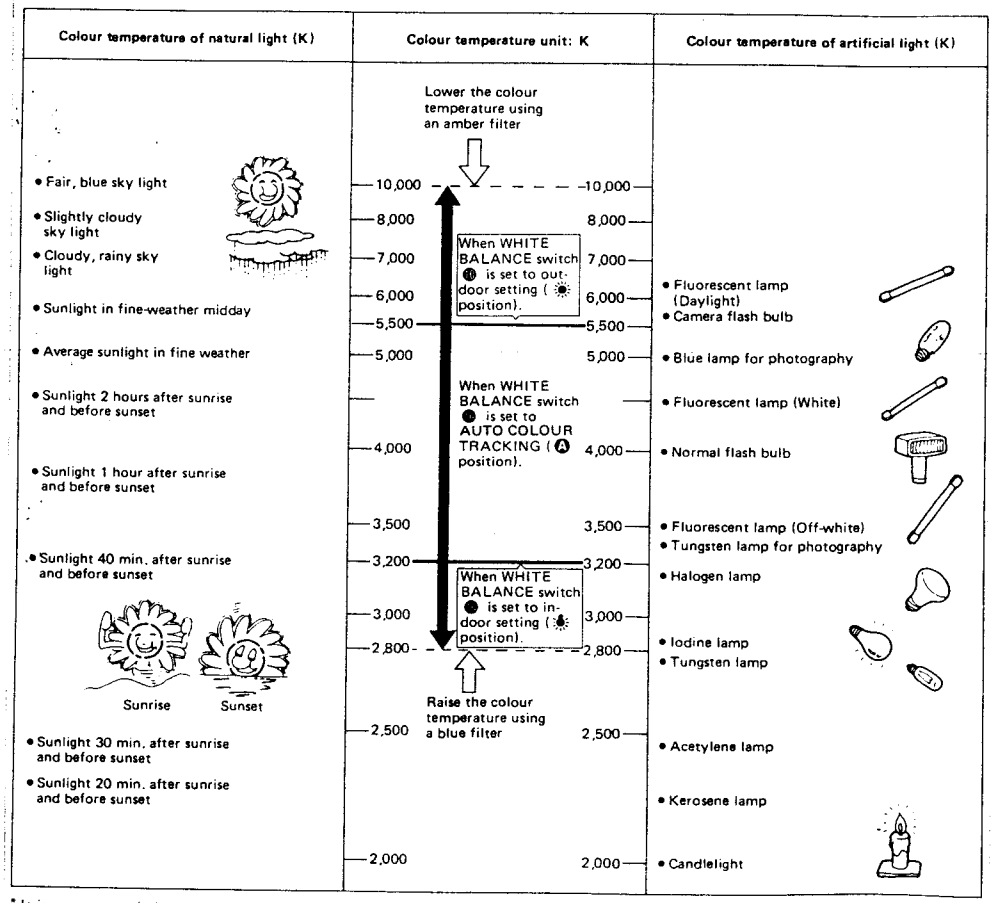
Especially at twilight or in dimly lit situations, AUTO COLOUR TRACKING may be influenced and alter the white balance to an undesirable degree by strongly reflecting coloured objects or by strong direct light passing near the colour temperature sensor and affecting it. In such cases, reset the WHITE BALANCE switch to the ☀ (or ☀) position.

COLOUR TEMPERATURE

When an object emits light because its temperature rises, there is a relationship between the temperature of the object and the colour of the light it is emitting. As the temperature of the object rises, the colour of the light varies from red to orange, yellow, white and blue. The colour of the light can be expressed as the absolute temperature of the object in degrees absolute or degrees Kelvin (abbreviated as K); this is called the "colour temperature" of the light.

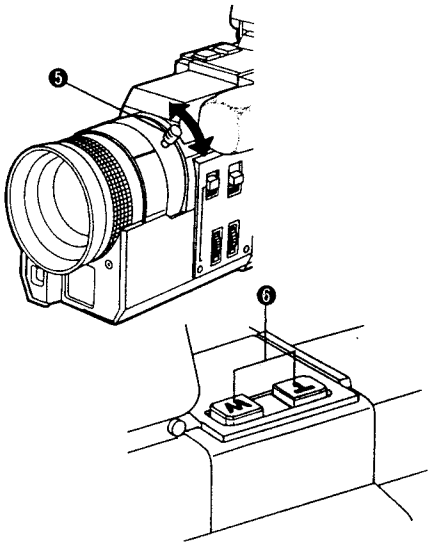
THE IMPORTANCE OF WHITE BALANCE ADJUSTMENT

White balance adjustment is necessary so that white objects are accurately reproduced as their original white colour. If the colour white is reproduced accurately, all other colours will be reproduced accurately as well. White balance adjustment should be done every time the colour temperature of the light falling on the subject changes. With the human eye, this adjustment is a natural spontaneous reflex, but with a video camera, white objects are reproduced reddish or blueish if correct white balance adjustment is not performed.
With this model, this adjustment is performed automatically by setting the WHITE BALANCE switch.


Colour temperature of natural light (K)
Colour temperature unit: K
Colour temperature of artificial light (K)
Lower the colour temperature using an amber filter
• Fair, blue sky light
• Slightly cloudy sky light
• Cloudy, rainy sky light
• Sunlight in fine-weather midday
• Average sunlight in fine weather
• Sunlight 2 hours after sunrise and before sunset
• Sunlight 1 hour after sunrise and before sunset
• Sunlight 40 min. after sunrise and before sunset
Sunrise
Sunset
• Sunlight 30 min. after sunrise and before sunset
• Sunlight 20 min. after sunrise and before sunset
10,000
8,000
7,000
6,000
5,500
5,000
4,000
3,500
3,200
3,000
2,800
2,500
2,000
When WHITE BALANCE switch ⑩ is set to outdoor setting (☀ position).
When WHITE BALANCE switch ⑩ is set to AUTO COLOUR TRACKING (Ⓐ position).
When WHITE BALANCE switch ⑩ is set to indoor setting (☀ position).
Raise the colour temperature using a blue filter
• Fluorescent lamp (Daylight)
• Camera flash bulb
• Blue lamp for photography
• Fluorescent lamp (White)
• Normal flash bulb
• Fluorescent lamp (Off-white)
• Tungsten lamp for photography
• Halogen lamp
• Iodine lamp
• Tungsten lamp
• Acetylene lamp
• Kerosene lamp
• Candlelight

* It is recommended to use the table above for colour temperature reference under various shooting conditions.

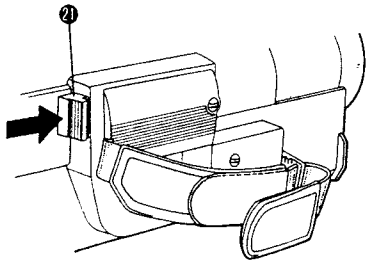
6 ZOOMING OPERATION



■ **Manual zooming**
Turn zoom lever ❺ clockwise or counter-clockwise for manual zooming.

■ **Power zooming**
Push buttons ❻ for power zooming.
Button T: to zoom to telephoto
Button W: to zoom to wide-angle

7 HOW TO RECORD WITH A VTR

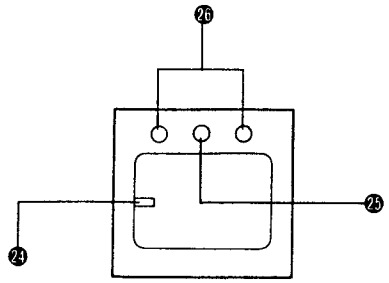


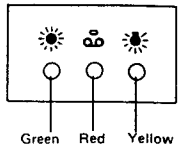
First, set the VTR to the record pause mode.
(For details refer to the VTR's instruction manual.)

- To start recording
  Push VTR start/stop button ㉑ .
- To stop recording
  Press button ㉑ again to set the VTR to the record pause mode to stop recording.

Notes:
1. When shooting in quiet places, sounds originating from camera operation such as the switching of controls, auto focusing and zooming can be sometimes much louder than desirable. In such a case, replace the detachable microphone with an external one and place it as far from the camera as practical to prevent these sounds from being recorded.
2. Do not install heavy accessories (weighing more than 300 g) in the accessory shoe; this can damage the shoe.
   Be extremely carefull in handling the camera when a long, extended accessory is installed in the shoe.

VIEWFINDER INDICATORS





Exposure indicator ㉔

Exposure indicator ㉔ is displayed on the left of the screen. This indicator moves up and down according to the exposure.
When indicator ㉔ moves:

UP	means	over-exposure
MIDDLE	means	proper exposure
DOWN	means	under-exposure

VTR START/TAPE END ALARM indicator ㉕

■ **How Indicator ㉕ Shows the VTR Mode**
When the VTR is started by pressing the VTR start/stop button ⓫ , indicator (red) ㉕ flashes slowly (or lights continuously depending on the VTR).
Pressing VTR START/STOP button ⓫ again sets the VTR to the pause mode at which time, indicator ㉕ goes off.

Note: Set the polarity switch ⓭ to the other position when the VTR start indicator ㉕ operates with the opposite polarity (See page 7E).

■ **How Indicator ㉕ Warns of the Tape Nearing Its End**
When less than one minute of tape is left, indicator (red) ㉕ flashes very quickly when the camera is operated in combination with JVC's compact VTR HR-C3.

WHITE BALANCE setting/BATTERY WARNING indicators ㉖

■ **How the Indicators ㉖ Show the White Balance Setting**
When white balance switch ⓬ is set to the indoor (artificial light) position ☼ , the right lamp (yellow) of indicators ㉖ is lit.
When set to the outdoor (natural light) position ☀ , the left lamp (green) of indicators ㉖ is lit.
When set to AUTO COLOUR TRACKING position Ⓐ , both lamps (green and yellow) are lit.

■ **How Indicators ㉖ Warn of the Battery Being Exhausted**
When the battery in the VTR becomes nearly exhausted, either lamp or both lamps (green or/and yellow) of indicators ㉖ flash.
When the white balance switch is set to the indoor (artificial light) position ☼ , the right lamp (yellow) flashes. When the white balance switch is set to the outdoor (natural light) position ☀ , the left lamp (green) flashes.
When the white balance switch is set to the AUTO COLOUR TRACKING position Ⓐ , both lamps (green and yellow) flash.

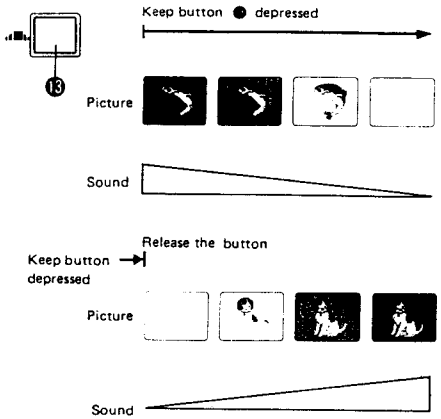
Playback and Monitoring on the Viewfinder Screen
- When the camera is connected with a VTR that has a camera connection terminal, the picture which has just been recorded can be played back and monitored on the viewfinder screen. (The picture may not be played back depending on the connected VTR.)
- Do not fail to cap the lens during playback, otherwise, the picture can be distorted.

1 HOW TO OPERATE THE FADER BUTTON

① Keep FADER button ⓭ depressed; the picture will gradually disappear to white, and the sound will gradually become inaudible within approximately 5 to 6 seconds.
Note: This operation is used for fade-outs.

② Release FADER button ⓭ which has been kept depressed; the picture will gradually emerge from a white screen, and the sound will gradually increase within approximately 7 to 8 seconds.

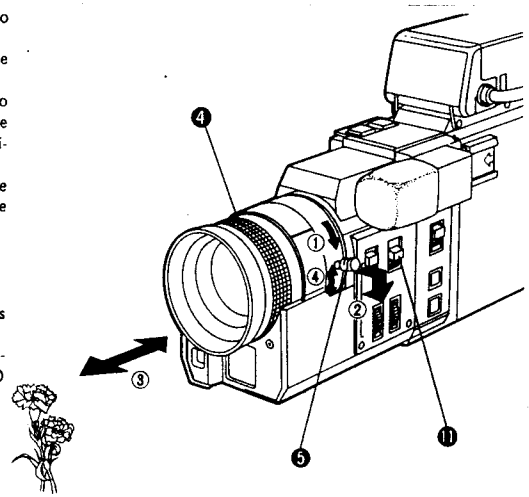
Note: This operation is used for fade-ins.



2 HOW TO OPERATE THE MACRO FACILITY

① Turn ZOOM lever ❺ in the direction of arrow ① to the maximum wide-angle position.
② Pulling ZOOM lever ❺ out, turn it further to the MACRO position (See arrow ②).
③ Adjust the distance between the camera and subject so that the image is the required size (see arrow ③). The minimum MACRO distance is approximately 1 centimeter.
④ Turn the ZOOM lever ❺ clockwise or counter-clockwise (See arrow ④) within the MACRO range so that the subject is in focus.

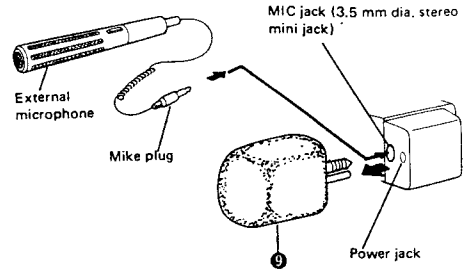
Notes:
- Set FOCUS switch ❶ to the manual position Ⓜ.
- When FOCUS ring ❹ is turned, the image size varies slightly.
- When ZOOM lever ❺ is turned too far towards telephoto when focusing, a click will be heard and MACRO will be released.



3 USING AN EXTERNAL MICROPHONE

① Pull the provided mike ❾ out of the MIC jack.
② Insert the mike plug of an external microphone into the MIC jack.

Notes:
- The MIC jack is a 3.5 mm dia. stereo-mini jack, but is compatible with a 3.5 mm dia. monaural mini plug.
- Some external microphones can be mounted in the accessory shoe.
- The POWER jack is exclusively for use with the provided mike ❾. Do not insert another microphone's plug into it.



4 HOW TO MOUNT AND DEMOUNT LENSES

With this camera, replacing the lens is possible. Use optional mount adaptors to mount interchangeable lenses for certain SLR (single lens reflex) cameras.

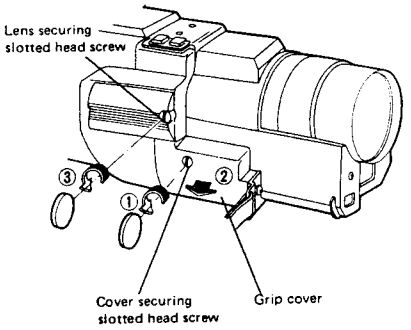
HOW TO DEMOUNT THE LENS

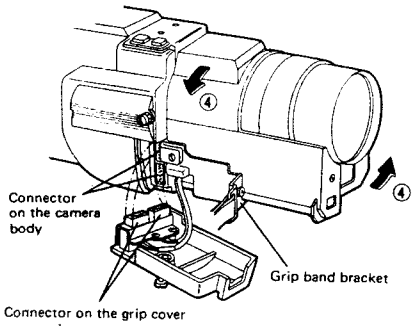
① Loosen the slotted head screw securing the grip cover to move it outward (arrow ①).
Note: The slotted head screw cannot be taken out of the grip cover.
② Remove the grip cover from the camera body (arrow ②).
Note: When removing the grip cover, be careful not to damage the connector pins. And when mounting the cover, align both connectors first, then push the cover gently to mount it on the camera body.
③ Loosen the slotted head screw securing the lens and disengage the screw (arrow ③).
Note: The slotted head screw that secures the lens can not be taken out of the camera body.
④ Rotate the lens in the direction of arrow ④ by 30 degrees.
⑤ Demount the lens from the camera body (arrow ⑤).

When mounting the lens, reverse steps ① through ⑤.

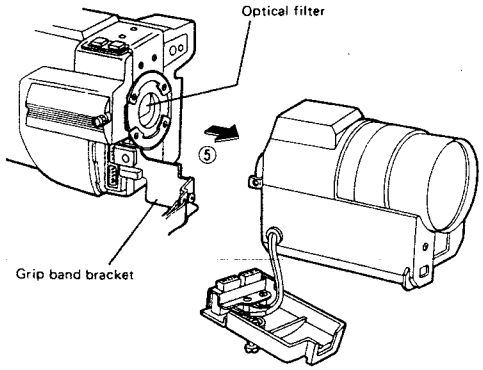
Notes:
- Never touch the surfaces of the lens or optical filter.
- Be extremely careful not to allow the surfaces of the lens and optical filter to get dustry or dirty.
- Prevent strong light from shining directly on the surface of the optical filter while replacing the lens.
- For details on how to use interchangeable lenses for SLR cameras, refer to the operational manuals of the optional bayonet SLR lens mount adaptors.
- When using substitute SLR camera lenses, protect the detached lens by covering the front lens with the provided lens cap and the rear lens with the rear lens cover (provided with optional mount adaptors).

- When an interchangeable lens for an SLR camera is mounted on the camera, IRIS CONTROL Knob ❽ should be adjusted referring to exposure indicator ❷ in the viewfinder screen, and FOCUS must be manually adjusted with the lens. Also, the WHITE BALANCE switch ⓫ can work at both position ☀ (outdoor setting) and position ☀ (indoor setting) but cannot work at position Ⓐ (AUTO COLOUR TRACKING setting).
Zoom buttons ❻ operate automatic zoom function only with the provided lens.
- Optional bayonet SLR Lens mount adaptors are available from JVC for use with Canon (LA-C7C(U)), Pentax (LA-C7P(U)), Olympus (LA-C7L(U)), Nikon (LA-C7N(U)) and Minolta (LA-C7M(U)) lenses. Use the mount adaptor designed for the chosen lens.





Notes:
1. An interchangeable lens, having more than a 63 mm diameter from within 25 mm of the surface of the mount, will not fit on the camera because of the grip band bracket.
2. Many kinds of interchangeable lenses of various specifications are available from camera shops. Choose a proper lens after having carefully determined the application and performance you desire.
3. The warranty does not cover the performance and quality of the camera when using it with an interchangeable lens mounted (one purchased at a camera shop).

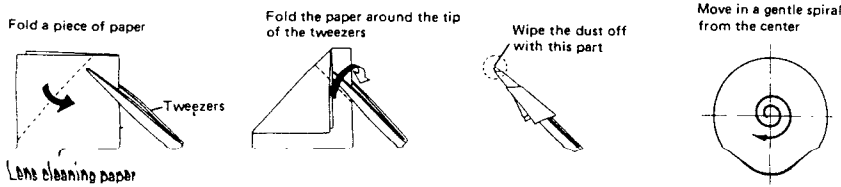


HOW TO CLEAN LENSES

When the surfaces of the lens and optical filter become dusty, blow it off with a blower or sweep it off with a soft, clean brush.

For cleaning the lens, fold a piece of lens cleaning paper (available in camera shops) around the tip of some tweezers, moisten the paper with a lens cleaning solution (available in camera shops), then wipe the dust off the surfaces of the lens and optical filter, moving in a gentle spiral from the center of the lens.

Notes: • Use alcohol-based lens cleaning solution.
• Do not wipe the lens violently.

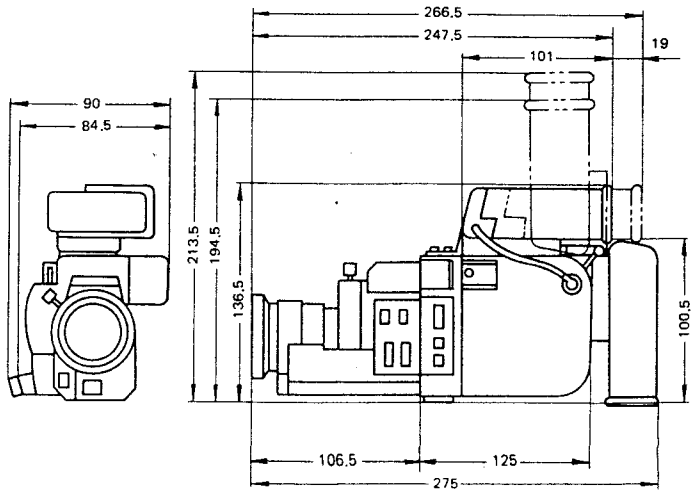

Fold a piece of paper
Tweezers
Lens cleaning paper
Fold the paper around the tip of the tweezers
Wipe the dust off with this part
Move in a gentle spiral from the center

SPECIFICATIONS

Type	: Colour Video Camera
System	: Step-energy decoding system (single tube)
Signal system	: Based on PAL standard
Pickup tube	: 1/2" Newvicon
Scanning	: 625 lines, 2:1 interlaced
Resolution	: 270 lines or more (horizontal) 300 lines or more (vertical)
Synchronizing system	: Internal sync
Video output	: 1 Vp-p, 75 Ω unbalanced (sync negative)
Video S/N ratio	: 45 dB or more
Audio output	: 77.5 m Vrms (-20 dBs), impedance 1 kΩ, 2 channels
Minimum illumination	: 10 lux (in auto iris mode excluding telephoto setting)
Illumination range	: 10 – 100,000 lux (in auto iris mode)
Minimum optimum illumination of subject being shot	: 500 lux
Colour temperature setting	: ① Outdoor (natural light) setting (☀ : About 5,500 K) ② Indoor (artificial light) setting (☀ : About 3,200 K) ③ AUTO COLOUR TRACKING setting (Ⓐ : About 2,800 K – 10,000 K)
Provided microphone	: Stereo microphone
Microphone jack	: 0.28 m Vrms (-68.79 dBs), high impedance, 2 channels (3.5 mm dia. stereo mini jack)
Viewfinder	: Electronic viewfinder (CRT, 1/2" black-and-white)
Lens	: F1.2, f = 8.5 – 51 mm, 6:1 Power zoom, Filter mounting screw dia. 46 mm, Auto iris control, Macro mechanism, Auto-focus
ZOOM min. distance	: Approx. 1 meter
MACRO min. distance	: Approx. 1 centimeter
Lens mount	: Special bayonet mount
Power source	: DC 12 V
Power consumption	: 6.0 W
Operating temperature range	: 0°C – 40°C
Weight	: 1.1 kg (2.5 lbs) (excluding camera cable and lens cap)
Accessories (included with camera)	: Stereo microphone Camera cable Lens cap Lens food EVF Rubber Eye cup

* Design and specifications subject to change without notice.
* This colour video camera is designed to output video signals conforming with the PAL standard. Thus, this camera is not usable for VTRs or colour television units which use colour signal systems other than the PAL standard.

DIMENSIONS Unit: mm (inches)



Diese Bedienungsanleitung ist in vier Fassungen, eine englische, französische, deutsche und holländische, gegliedert:

- Englisch ..... Seite 1E – 17E
- Deutsch ..... Seite 1G – 17G
- Französisch ..... Seite 1F – 17F
- Holländisch ..... Seite 1NL – 17NL

ACHTUNG:
SCHÜTZEN SIE DIESES GERÄT VOR REGEN UND FEUCHTIGKEIT, DAMIT ES NICHT IN BRAND GERÄT ODER EIN KURZSCHLUSS ENTSTEHT.

VORSICHT:
Zur Vermeidung von Kurzschlüssen und Brandgefahr KEINE andere Spannungsversorgung verwenden.

VORSICHT
Zur Vermeidung von elektrischen Schlägen die Kamera nicht demontieren. Das Gerät enthält keine von Laien reparierbaren Teile. Reparaturen nur von qualifizierten Kundendienst-Fachleuten ausführen lassen.

VIDEO-NORM
Diese Kamera liefert Videosignale nach der PAL-Norm. Geräte anderer Normen können nicht an die Kamera angeschlossen werden. Sollten Schwierigkeiten beim Anschluß und Gebrauch mit einem Videorekorder auftreten, wenden Sie sich bitte an eine autorisierte JVC-Servicestelle oder JVC-Serviceabteilung.

Bei Aufnahmen wichtiger Szenen (z.B. bei einer Hochzeit) sollten Probeaufnahmen durchgeführt und darauf überprüft werden, ob Bild- und Tonqualität normal sind. So können Sie sicher sein, eine unwiederbringliche Aufnahmeszene ohne Beeinträchtigungen bei Kamera, Videorekorder und Kassettenband in Bild und Ton festzuhalten.

GX-N7E
ADJUSTMENT
REGLAGE
EINSTELLUNG

CONTENTS

MEASURING INSTRUMENTS, TOOLS AND FIXTURES FOR ADJUSTMENTS 2E
INSTRUMENTS CONNECTIONS AND SET UP 3E
PRIOR TO STARTING ADJUSTMENT 3E
MAIN PARTS ARRANGEMENT 4E
LOCATIONS OF BOARDS AND TEST POINTS 5E
ADJUSTMENTS LOCATION 6E
ADJUSTING PROCEDURES 9E
ADJUSTING STEP 10E
1. ADJUSTMENT OF THE SSG (SYNC SIGNAL GENERATOR) 12E
2. ADJUSTMENT OF THE DEFLECTION SYSTEM 13E
3. ADJUSTMENT OF THE SIGNAL SYSTEM 19E
4. ADJUSTMENT OF THE ELECTRONIC VIEWFINDER 39E

TABLE DES MATIERES

APPAREILS DE MESURE, OUTILS ET DISPOSITIFS DE REGLAGE 2F
BRANCHEMENTS ET MISE EN PLACE DES APPAREILS 3F
AVANT DE COMMENCER LES REGLAGES 3F
DISPOSITION DES PIECES ET COMPOSANTS PRINCIPAUX 4F
EMPLACEMENTS DES PLAQUETTES ET POINTS DE TEST 5F
POINTS DE REGLAGE 6F
PROCEDURES DE REGLAGES 9F
ETAPES DE REGLAGE 10F
1. REGLAGE DU GENERATEUR DE SIGNAL DE SYNCHRONISATION 12F
2. REGLAGE DU BLOC DE DEVIATION 13F
3. REGLAGE DU BLOC DE SIGNAL 19F
4. REGLAGE DU VISEUR ELECTRONIQUE 39F

INHALT SVERZEICHNIS

MESSINSTRUMENTE, WERKZEUGE UND VORRICHTUNGEN FÜR DIN EINSTELLUNGEN 2G
INSTRUMENTENANSCHLÜSSE UND AUFSTELLUNG 3G
VORBEREITUNGEN FÜR DEN BEGINN DER EINSTELLUNG 3G
ANORDNUNG DER HAUPTBAUTEILE 4G
ANORDNUNG DER LEITERPLATTEN UND PRÜFPUNKTE 5G
EINSTELLPUNKTE 6G
EINSTELLVORGÄNGE 9G
EINSTELLUNGSSCHRITTE 10G
1. EINSTELLUNG DES TAKTGEBERS (SSG) 12G
2. EINSTELLUNG DES ABLENKSYSTEMS 13G
3. EINSTELLUNG DES SIGNALSYSTEMS 19G
4. EINSTELLUNG DES ELEKTRONISCHEN SUCHERS 39G

GX-N7E (No. 5550)
July 1984

MEASURING INSTRUMENTS, TOOLS AND FIXTURES FOR ADJUSTMENTS

■ MEASURING INSTRUMENTS

1. Oscilloscope 1
2. Color monitor TV (PAL-type) 1
   Color temperature: 9,300K.
3. Lights ..... 1 or 2
   Color temperature: 3,200K.
4. Frequency counter 1
5. DC voltmeter 1
6. Power supply ..... one each
   1) AC adaptor
      CV-AC222 or CV-AC222 (S) (in Continental)
      CV-AC224 or CV-AC224 (S) (in UK)
      CV-AC324 or CV-AC324 (S) (in Australia)
   2) Camera cable
      VC-444-2E and VC-409-3
7. Vectorscope (PAL-type) 1
   Used only if necessary

■ TOOLS AND FIXTURES

1. PATTERN (Gray scale pattern) (White pattern) (Color bar pattern)

(Note)
Reflection-type patterns eventually suffer from drops in signal output level or loss of output uniformity. Periodic replacement is recommended.

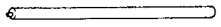
GS-2A
Reflection-type (γ = 2.2)

WC-2A
Reflection-type

Reflection-type : CC-2A
Transmission-type : CC-2T

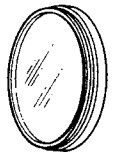
2. DRIVERS

Adj. driver



Back focus adj. driver A-7541

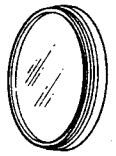
3. RED FILTER



R60-46S (46ϕ)

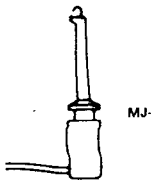
Equivalent filter using KODAK wratten No. 25 gelatin filter

4. COLOR TEMP. CONVERSION FILTER



1. W4 Color temperature conversion filter (46ϕ)
2. KODAK wratten No. 80B gelatin filter

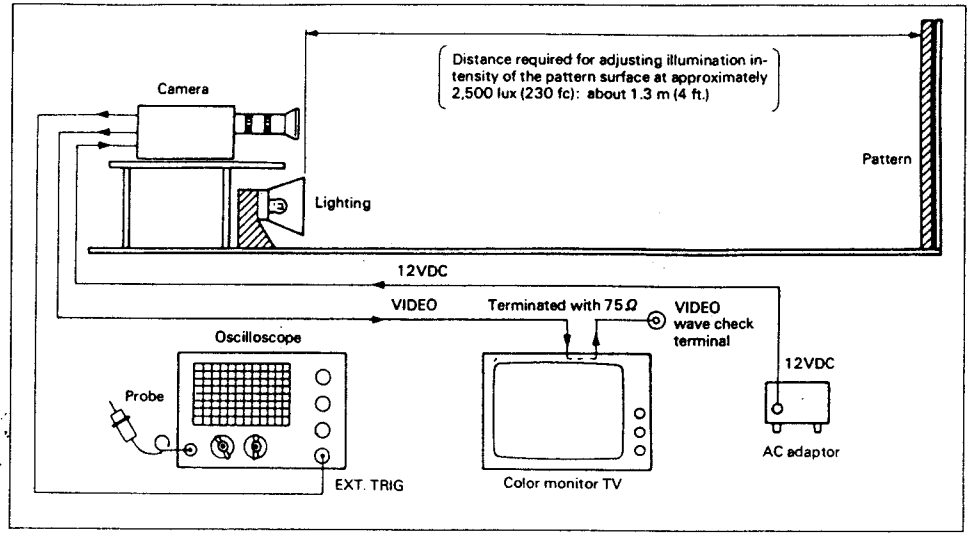
5. PIN CLIP



MJ-025

Slightly bending the pin tip facilitates its use.

■ [illegible]



■ [illegible]

(1) AGING A NEW PICKUP TUBE

New pickup tubes must be aged (run) at least 2 – 3 hours to stabilize their characteristics. During aging, be sure to adjust V. HEIGHT VR of the camera so that scanning is as wide as possible. Scanning must slightly overlap the black mask portion.

After aging, readjust the camera as explained in this manual. (Some items only need to be checked.)

(2) Warming up the camera

Turn on the camera at least 10 minitues before making any adjustments.

(3) Lighting

- Adjust the distance between the light and the subject so that the illumination on the subject is about 2,500 lux.
- Make the illumination over the entire subject surface as uniform as possible.

(4) Connection to external trigger terminals of oscilloscope

The following trigger signals must be monitored separately:

- **Horizontal trigger signal**
  Q3 (blue wire) or Q4 (red wire) connector of the DEF & HV BOARD.
- **Vertical trigger signal**
  Q1 (orange wire) or Q2 (yellow wire) connector of the DEF & HV BOARD.

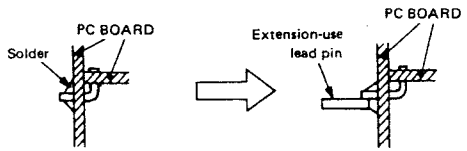
(5) Caution "High Voltage"

Some parts of this camera, carry high voltages, such as the high voltage transformer, high voltage module and EVF, exercise extreme care during adjustment.

(6) Test points

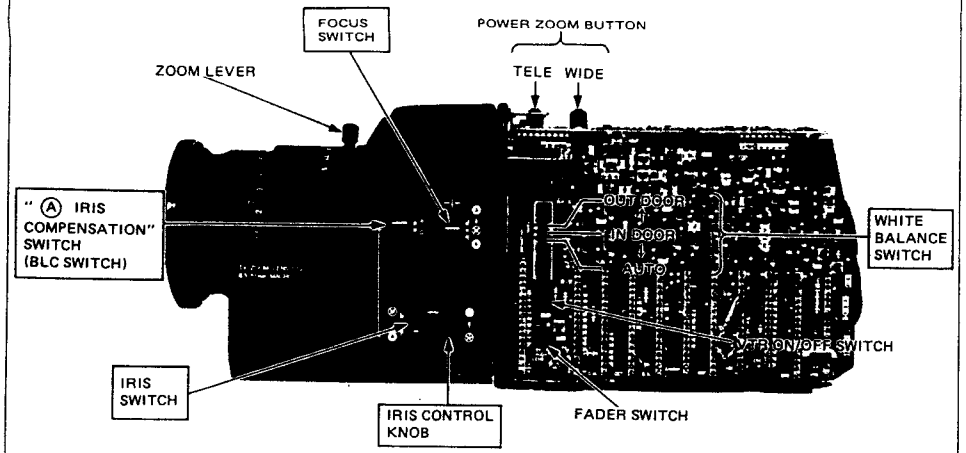
The pins of respective PC BOARD modules of this camera are used as the test points, making it very difficult to connect onto these pins. it is therefore recommended that axtension-use lead pins be attached to those pins frequently used.

- (B7) (B8) (F12) (F13) (F14) (J5) (J6) and others



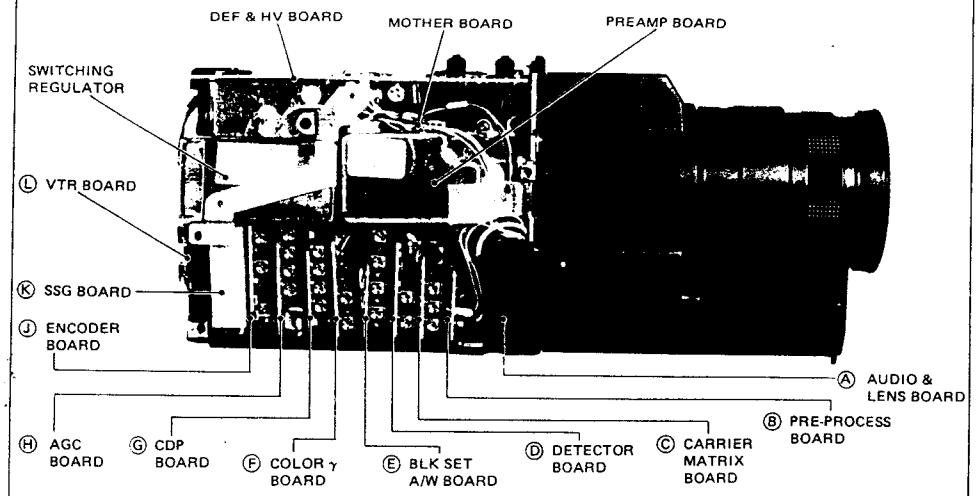
MAIN PARTS ARRANGEMENT

* GX-N7E

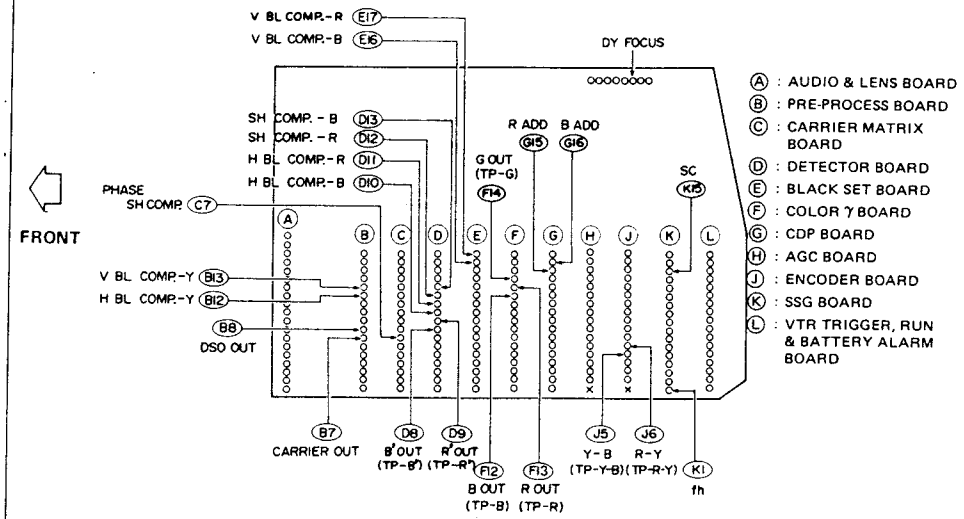


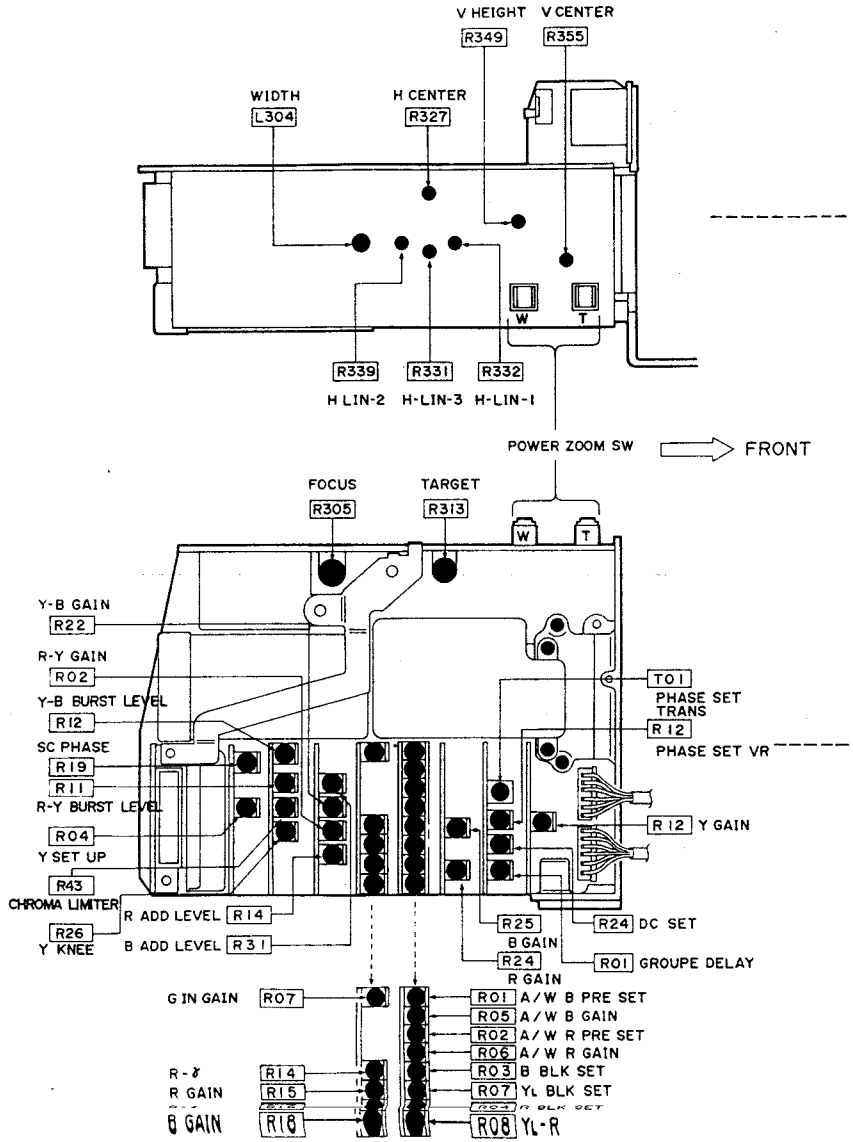
LOCATIONS OF BOARDS AND TEST POINTS

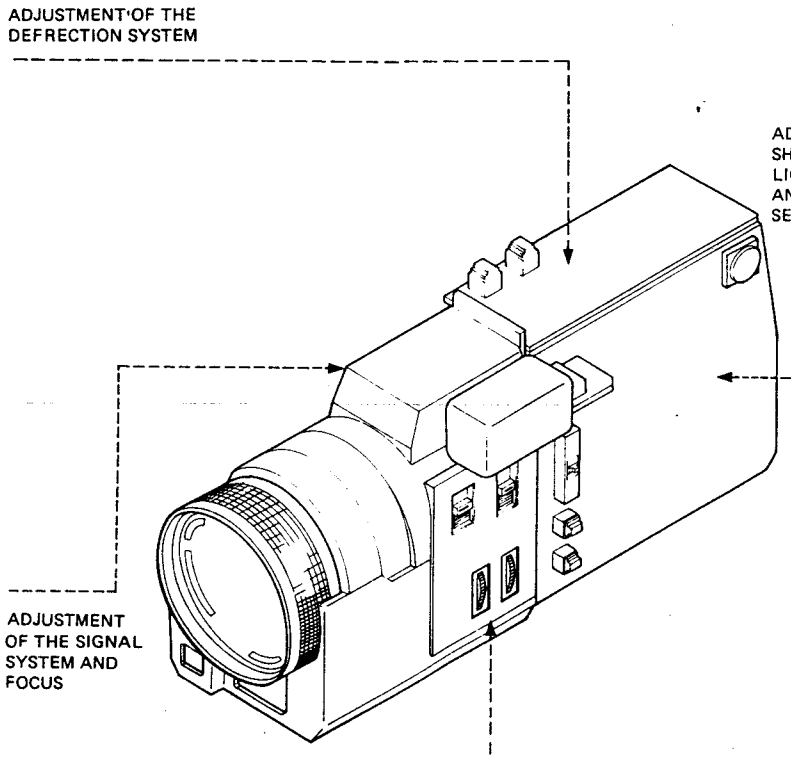
○ BOARDS LOCATIONS

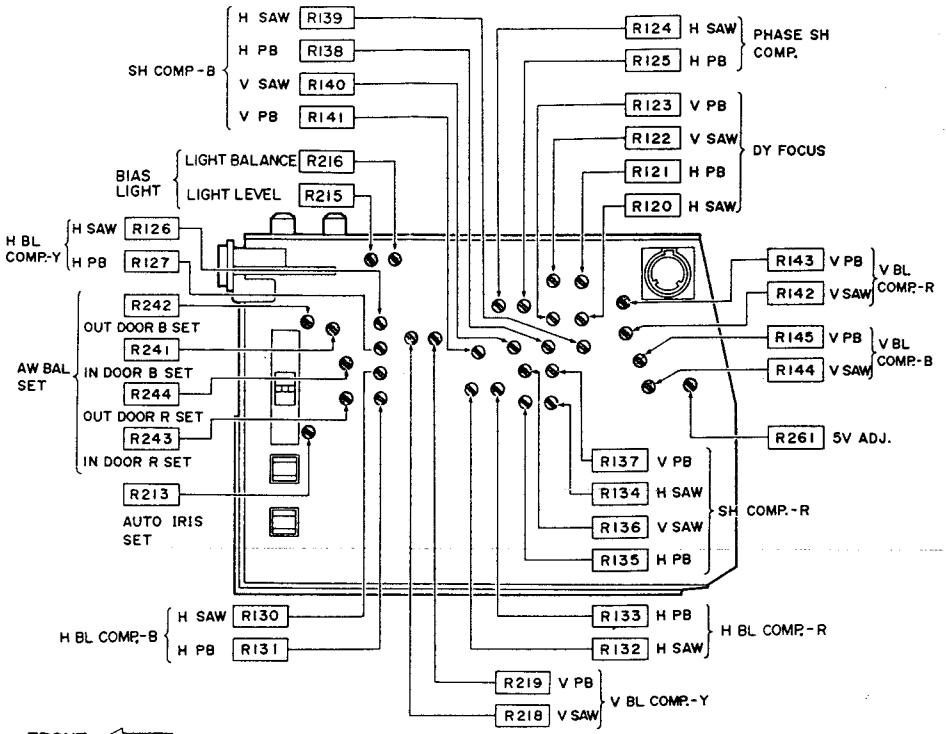


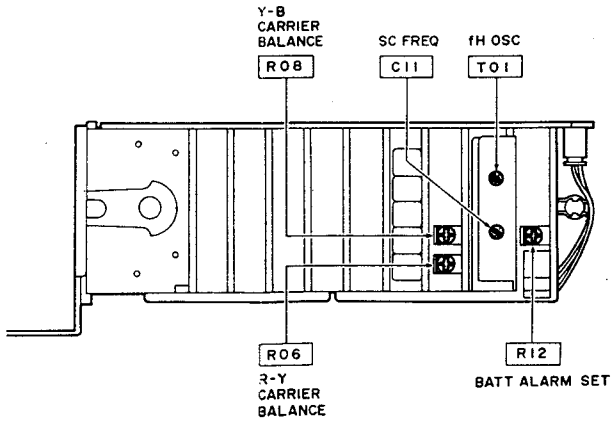
○ TEST POINTS LOCATIONS




V HEIGHT R349
V CENTER R355
WIDTH L304
H CENTER R327
W
T
R339 H LIN-2
R331 H-LIN-3
R332 H-LIN-1
POWER ZOOM SW
FRONT
FOCUS R305
TARGET R313
W
T
Y-B GAIN R22
R-Y GAIN R02
Y-B BURST LEVEL R12
SC PHASE R19
R11
R-Y BURST LEVEL
R04
Y SET UP R43
CHROMA LIMITER R26 Y KNEE
R ADD LEVEL R14
B ADD LEVEL R31
T01 PHASE SET TRANS
R12 PHASE SET VR
R12 Y GAIN
R25
R24 DC SET
B GAIN
R24
R GAIN
R01 GROUPE DELAY
G IN GAIN R07
R-γ R14
R GAIN R15
B GAIN R16
R01 A/W B PRE SET
R05 A/W B GAIN
R02 A/W R PRE SET
R06 A/W R GAIN
R03 B BLK SET
R07 YL BLK SET
R08 YL-R


ADJUSTMENT OF THE DEFRECTION SYSTEM
ADJUSTMENT OF THE SHADING COMP., BIAS LIGHT COMP., IRIS SET AND WHITE BALANCE SET
ADJUSTMENT OF THE SIGNAL SYSTEM AND FOCUS
ADJUSTMENT OF THE SSG, CARRIER BALANCE AND BATTERY ALARM


SH COMP-B
H SAW R139
H PB R138
V SAW R140
V PB R141
BIAS LIGHT
LIGHT BALANCE R216
LIGHT LEVEL R215
H BL COMP-Y
H SAW R126
H PB R127
AW BAL SET
R242 OUT DOOR B SET
R241 IN DOOR B SET
R244 OUT DOOR R SET
R243 IN DOOR R SET
R213 AUTO IRIS SET
H BL COMP-B
H SAW R130
H PB R131
R124 H SAW
R125 H PB
PHASE SH COMP.
R123 V PB
R122 V SAW
R121 H PB
R120 H SAW
DY FOCUS
R143 V PB
R142 V SAW
V BL COMP-R
R145 V PB
R144 V SAW
V BL COMP-B
R261 5V ADJ.
R137 V PB
R134 H SAW
R136 V SAW
R135 H PB
SH COMP.-R
R133 H PB
R132 H SAW
H BL COMP.-R
R219 V PB
R218 V SAW
V BL COMP.-Y
FRONT


Y-B CARRIER BALANCE
R08
SC FREQ
C11
fH OSC
T01
R06
R-Y CARRIER BALANCE
R12
BATT ALARM SET

4. BASIC PROCEDURES

1. PRESETTING

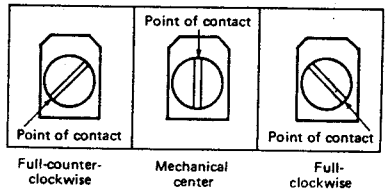
Before starting the adjustment procedure, preset the following switches as indicated.

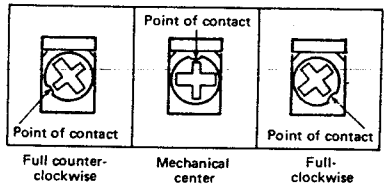
1) **Iris switch** → " M " (Manual)
2) **" A iris compensation" switch** → "0"
3) **White balance button** → " ◐ " (In-door)
4) **Focus switch** → "MANUAL"

(Note) The AGC turns OFF when IRIS SWITCH is set to MANUAL, and ON when the switch is set to AUTO.

2. Very thin wires are used for wiring connection between multiple circuit boards. Removing and replacing the circuit boards several times during adjustment may cause the connections to be broken.
3. Connect the **Ground** through the chassis frame.
4. **Repeat adjusting procedures** until the best condition is attained.

(Note) 1. Chip VR rotating position is designated as shown in the figure below for the convenience of explanation, since the chip VR can be rotated 360°



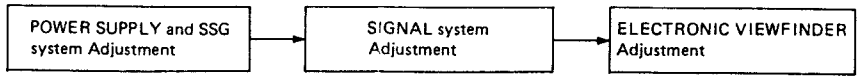


2. Never rotate VR's other than those specified by this Instruction Manual.

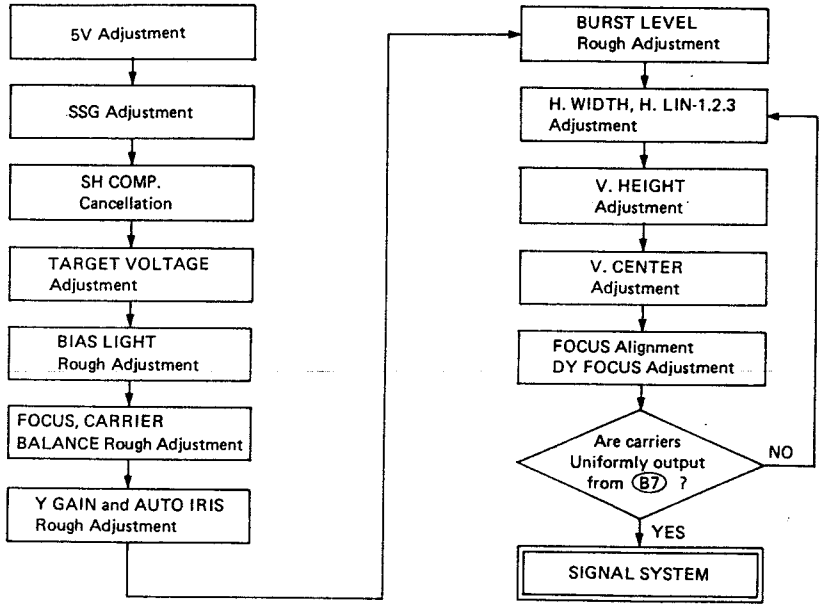
5. Unless otherwise designated, always apply **"just scan"** to all pattern adjustments.

5. ADJUSTMENTS

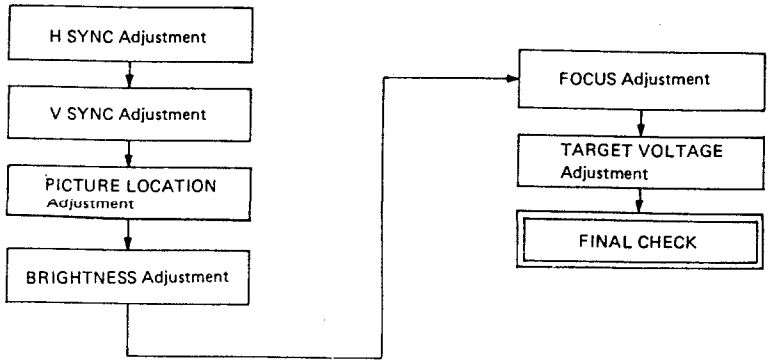
• **ADJUSTING STEP**



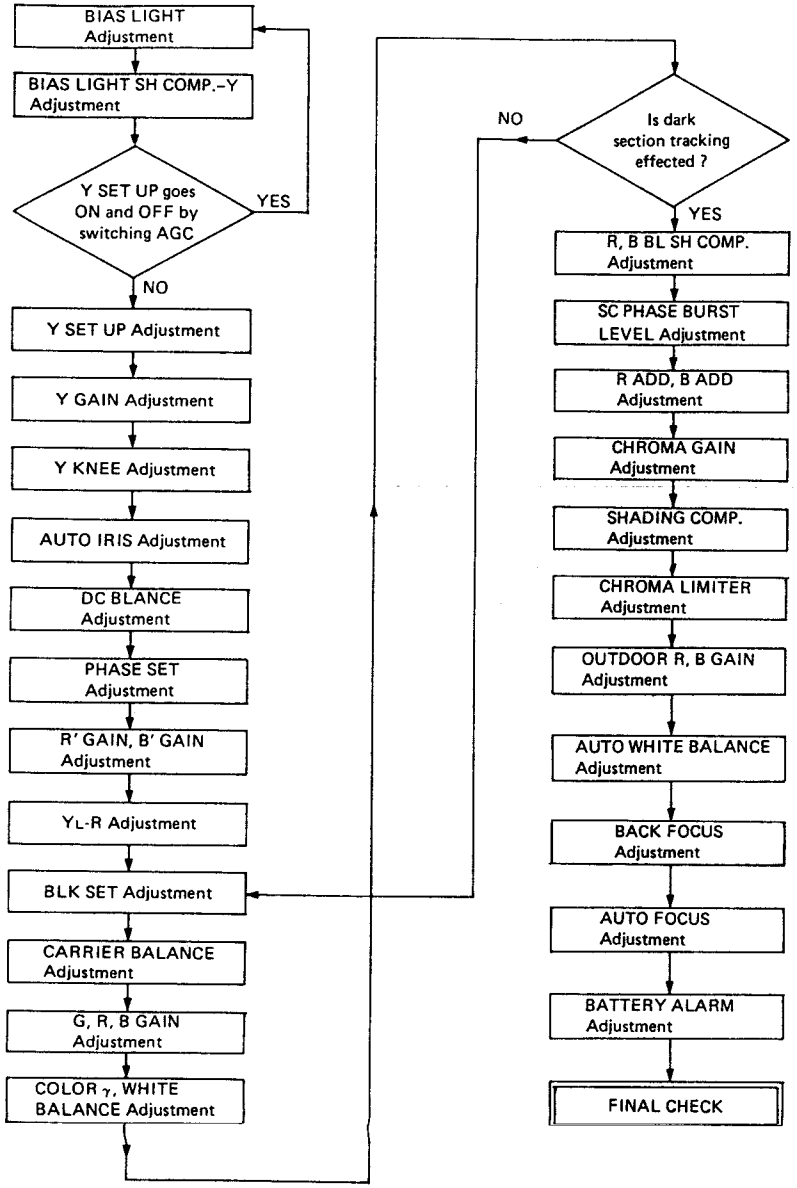
1. POWER SUPPLY and SSG system

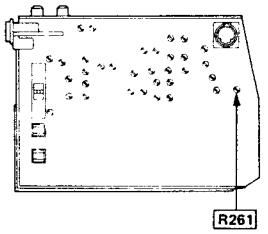
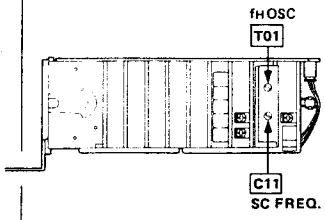


3. ELECTRONIC VIEW FINDER system



2. SIGNAL SYSTEM



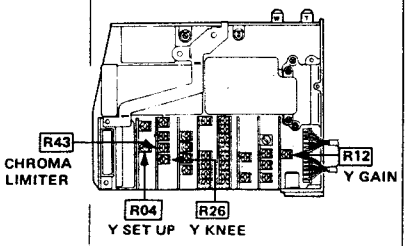
No.	Item	Measuring instrument	Test point and Adjustment part	Description
			ADJUSTMENT OF THE SSG (SYNC SIGNAL GENERATOR)	
1.	**5V Adjustment**	**DC Voltmeter**	(B2) (5V LINE) R261(5V ADJ.) [PRE-PRO BOARD] [MOTHER BOARD] 	Set the DC voltage to **5.0 V ± 0.05 V** scale of the meter **(Note)** The voltmeter should be precisely adjusted. Ensure that only an accurate tester is used.
2.	**SSG Adjustment**	This adjustment is only done when repairing the SSG IC and peripherals that require adjustment. In most cases, you can go directly to step 2. **"Adjusting the Deflection System".**		
2-1	**fsc Adjustment**	**Frequency counter**	(K15) C11(SC FREQ.) [SSG BOARD] [SSG BOARD]	Turn the **C11 (SC FREQ.)** trimmer to obtain a frequency counter reading of **4.433619 MHz ± 7 Hz.** **(Note)** Take care not to short-circuit any of the IC terminals.
2-2	**fh Adjustment**	**DC Voltmeter**	(K1) T01 (fh OSC) [SSG BOARD] [SSG BOARD] 	Turn the core of the **T441 (fh OSC)** to obtain a DC voltmeter reading of **2.5 V ± 0.5 V.**

No.	Item	Measuring instrument	Test point and Adjustment part	Description

[redacted]

PRESETTING

A To obtain a picture



If a picture is not obtained, preset the following VRs as indicated.

- **PRE PROCESS BOARD**
  R12 (Y GAIN) → Mechanical center.
- **AGC BOARD**
  R26 (Y KNEE) → Turn fully counterclockwise.
  R43 (CHROMA LIMITER) → Turn fully counterclockwise.
- **ENCODER BOARD**
  R04 (Y SET UP) → Mechanical center.

If a picture is already obtained or fine adjustment is to be made later, presetting is not necessary.

B SH COMP. Cancellation

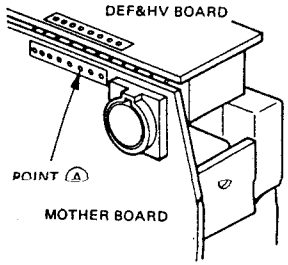
(B12) (B13) H BL COMP-Y VRs
[PRE PRE Board] V BL COMP-Y VRs

(C7) PHASE SH COMPVRs
[CM Board]

(D10) (D11) H BL COMP-R VRs
(D12) (D13) H BL COMP-B VRs
SH COMP-R VRs
[DET Board] SH COMP-B VRs

(E16) (E17) V BL COMP-B VRs
V BL COMP-R VRs
[B. SET Board]

POINT (A) DY.FOCUS VRs
[MOTHER Board] [MOTHER BOARD]



*As to the each VR position, refer to the item "ADJUSTMENT LOCATIONS".

Before performing deflection adjustments, preset the following VRs as indicated.

1. Measure (B12) at the H-rate and adjust the **H BL COMP-Y VRs** to obtain flat waveforms.
2. Measure (B13) at the V-rate and adjust the **V BL COMP-Y VRs** to obtain flat waveforms.
3. Measure (C7) at the H-rate and adjust the **PHASE SH COMP VRs** to obtain flat waveforms.
4. Measure (D11) at the H-rate and adjust the **H BL COMP-R VRs** to obtain flat waveforms.
5. Measure (D10) at the H-rate and adjust the **H BL COMP-B VRs** to obtain flat waveforms.
6. Measure (D12) at the H- and V-rate, and adjust the **SH COMP-R VRs** to obtain flat waveforms.
7. Measure (D13) at the H- and V-rate, and adjust the **SH COMP-B VRs** to obtain flat waveforms.
8. Measure (E16) at the V-rate and adjust the **V BL COMP-B VRs** to obtain flat waveforms.
9. Measure (E17) at the V-rate and adjust the **V BL COMP-R VRs** to obtain flat waveforms.
10. Measure **POINT (A)** at the H- and V-rate, and adjust the **DY.FOCUS VRs** to obtain flat waveforms.

No.	Item	Measuring instrument	Test point and Adjustment part	Description

1. TARGET VOLTAGE SETTING

Oscilloscope (H-rate 10:1)

(B14) R313 (TARGET)
[PRE-PRO BOARD] [DEF & HV BOARD]

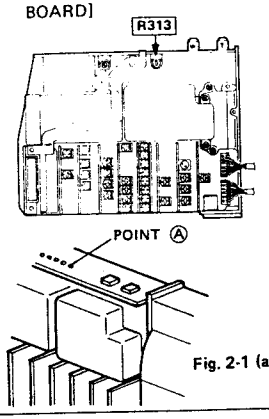


Fig. 2-1 (a)

1. **Confirm the display** voltage appearing on the pickup tube.
   (Confirmation is facilitated by demounting a switching regulator.)
2. Observe Point (A) shown in **Fig. 2-1 (a)** and measure cathode voltage (Vk).
   (Waveforms shown in **Fig. 2-1 (b)** are observable.)

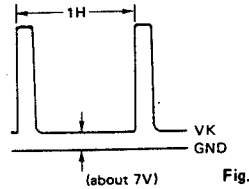


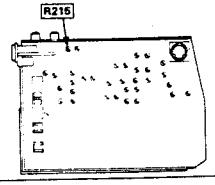
Fig. 2-1 (b)

3. Measure (B14) and adjust **R313 (TARGET)** so that voltage becomes "pickup tube display voltage + cathode voltage (Vk)."

2. Rough Adjustment of the BIAS LIGHT

Oscilloscope (H-rate 1:1)

(B8) R215 (LIGHT LEVEL)
[PRE-PRO BOARD] [MOTHER BOARD]



○ **Close the Iris**

1. As shown in **Fig. 2-2**, adjust **R215 (LIGHT LEVEL)** so that the signal-period level matches the blanking-period level.

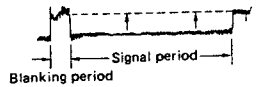


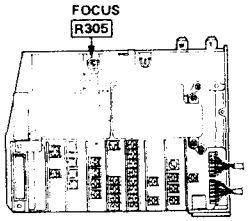
Fig. 2-2

3. Rough Adjustment of the FOCUS and CARRIER BALANCE

Oscilloscope (H-rate 10:1)

(B7) R305 (FOCUS)
[PRE-PRE BOARD] [DEF & HV BOARD]

VIDEO OUT R08 (Y-B CARR. BAL.)
R06 (R-Y CARR. BAL.)
[AGC BOARD]



○ **Set the IRIS SWITCH to AUTO**

1. Measure (B7) and adjust **R305 (FOCUS)** so that the waveforms are maximized and phase lines become clearly observable, as shown in **Fig. 2-3 (a)**.

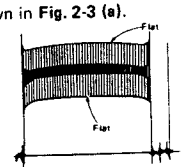
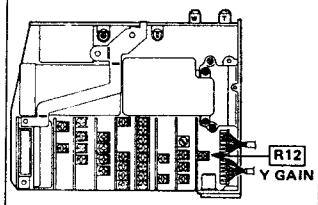
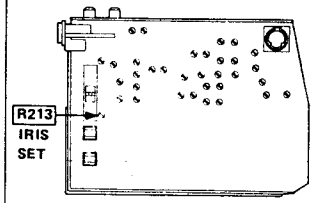
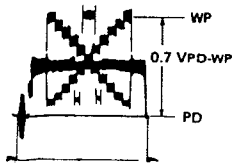
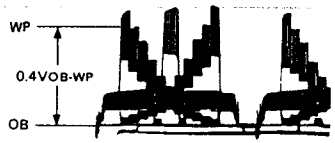
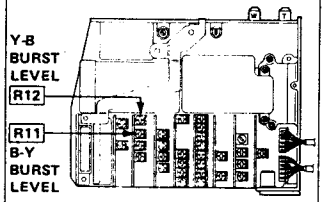
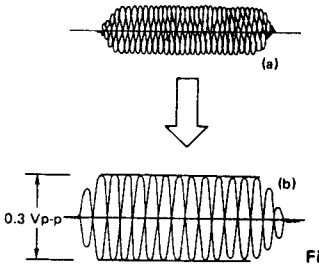


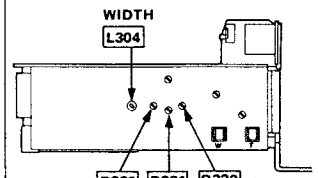
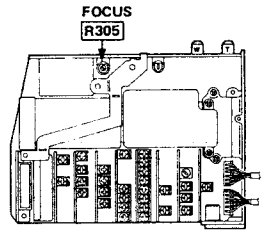
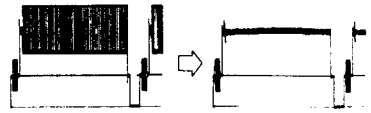
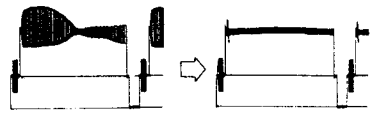
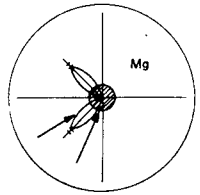
Fig. 2-3 (a)

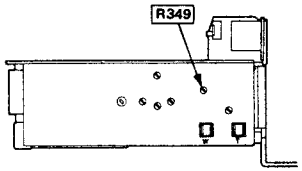
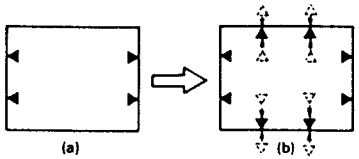
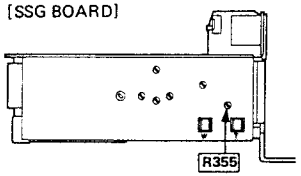
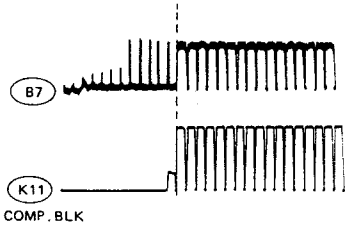
○ **Close the Iris (AGC OFF)**

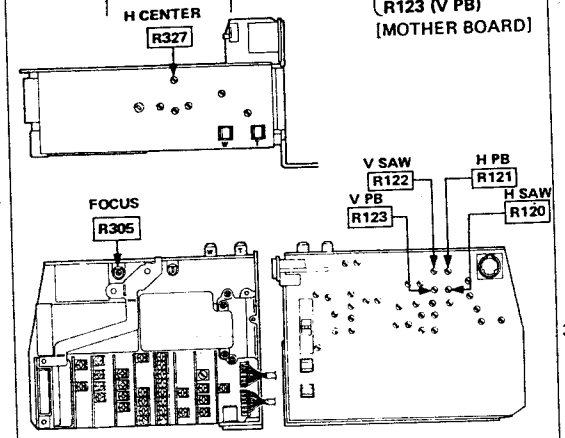
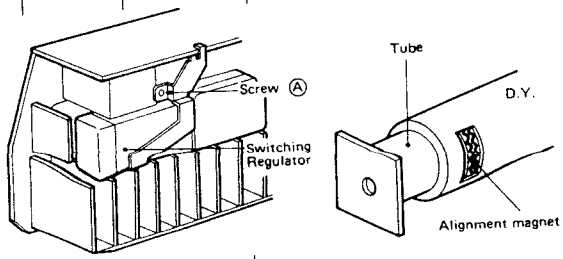
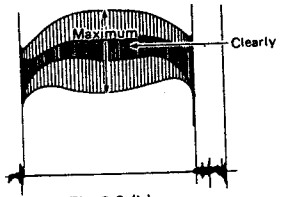
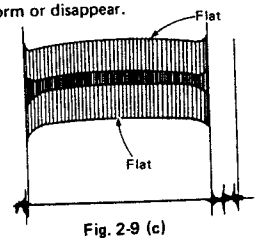
1. Measure VIDEO OUT, and alternately adjust **R08 (Y-B CARR. BAL.)** and **R06 (R-Y CARR. BAL.)** so that the carriers are minimized as shown in **Fig. 2-3 (b)**.

Fig. 2-3 (b)

No.	Item	Measuring instrument	Test point and Adjustment part	Descripton
4.	Rough Adjustment of the Y GAIN and AUTO IRIS	Oscilloscope (H-rate 10:1) Gray scale pattern	(B8) [PRE-PRO BOARD] R12 (Y GAIN) [PRE-PRO BOARD] R213 (IRIS SET) [MOTHER BOARD]  	○ Set the IRIS SWITCH to AUTO 1. Measure VIDEO OUT, and as shown in Fig. 2-4 (a), adjust R213 (IRIS SET) so that the waveforms become 0.7VPD-WP (pedestal-white peak)  Fig. 2-4 (a) 2. Measure (B8), and as shown in Fig. 2-4 (b), adjust R12 (Y GAIN) so that the waveforms become 0.4VOB-WP (optical black-white peak)  Fig. 2-4 (b)
5.	Rough Adjustment of the BURST LEVEL	Oscilloscope (H-rate 10:1)	VIDEO OUT R11 (R-Y BURST LEVEL) R12 (Y-B BURST LEVEL) [AGC BOARD] 	1. Observe VIDEO OUT by removing the lens cap. 2. Expand the burst portion as shown in Fig. 2-5. 3. Alternately adjust R11 (R-Y BURST LEVEL) and R12 (Y-B BURST LEVEL) so that the waveforms display an optimum "interleave" status by possessing 180° phase difference as shown in Fig. 2-5 (b), and also that their level becomes 0.3 Vp-p.  Fig. 2-5

No.	Item	Measuring instrument	Test point and Adjustment part	Description
6.	H. WIDTH H. LIN Adjustment	Oscilloscope (H-rate 10:1) White pattern	VIDEO OUT L304 (WIDTH) R332 (H LIN-1) R339 (H LIN-2) R331 (H LIN-3) R305 (FOCUS) [DEF & HV BOARD]  	**Adjusting procedure with oscilloscope.** ○ Set the IRIS CONTROL SWITCH to AUTO 1. As shown in Fig. 2-6 (a), adjust R305 (FOCUS) so that the carrier is minimized.  Fig. 2-6 (a) 2. As shown in Fig. 2-6 (b), adjust L304 (WIDTH), R332 (H LIN-1), R339 (H LIN-2), and R331 (H LIN-3) so that the carrier is minimized and becomes flat.  Fig. 2-6 (b) 3. Repeat above steps 1 and 2 until optimum conditions are obtained. (Note) 1. This adjustment is effective only when adjustment of 4.1 MHz trap is correct. 2. When colors other than green are observed, adjust R15 (R GAIN) and R18 (B GAIN), and reduce the carriers.
		Vectorscope White pattern	VIDEO OUT	**Adjusting procedure with vectorscope** ○ Set the IRIS CONTROL SWITCH to AUTO. 1. As shown in Fig. 2-6 (c), alternately adjust R305 (FOCUS), L304 (WIDTH), R332 (H LIN-1), R339 (H LIN-2), and R331 (H LIN-3) to achieve convergence at one point in the MG direction.  Fig. 2-6 (c)

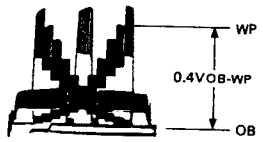
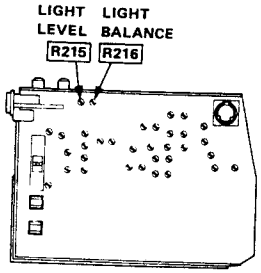
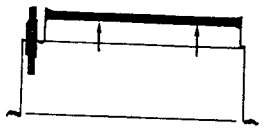
No.	Item	Measuring instrument	Test point and Adjustment part	Description
7.	V. HEIGHT Adjustment	Monitor TV (underscan type) Gray scale pattern (GS-2A)	VIDEO OUT R349 (V HEIGHT) [DEF & HV BOARD] 	○ If an overscanning-type monitor TV is used, mark the screen in the ratio 3:4. 1. Slide the camera back and forth or perform zooming until the horizontal frame marks concide with the side limits of the monitor screen, as shown in **Fig. 2-7 (a).** 2. Adjust **R349 (V. HEIGHT)** until the vertical frame marks concide with the upper and lower limits of the monitor screen, as shown in **Fig. 2-7 (b).**  Fig. 2-7
8.	V.CENTER Adjustment	Oscilloscope (V-rate 1 : 1) White pattern	B7 [PRE-PRO BOARD] R355 (V CENTER) [DEF & HV BOARD] K11 [SSG BOARD] 	○ **Set the IRIS CONTROL SWITCH to AUTO** 1. Shoot the white pattern on the full screen surface and adjust so that the pattern edges do not appear on the screen. 2. Simultaneously measure K11 (COMP. BLK) and B7, and adjust **R355 (V CENTER)** so that the video start coincides with **COMP. BLK** completing point as shown in **Fig. 2-8.**  Fig. 2-8

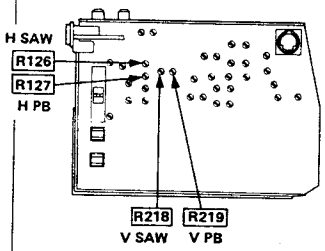
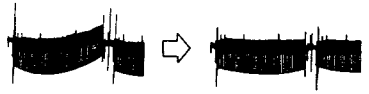
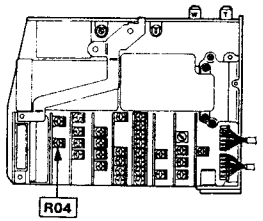
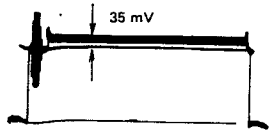
No.	Item	Measuring instrument	Test point and Adjustment part	Description
9.	SHADING & H CENTER Adjustment	Oscilloscope (H-rate 10:1) White pattern	B7 [PRE-PRO BOARD] Alignment magnet R305 (FOCUS) R327 (H CENTER) [DEF & HV BOARD] DY. FOCUS VRs R120 (H SAW) R121 (H PB) R122 (V SAW) R123 (V PB) [MOTHER BOARD]   Fig. 2-9 (a)	○ **Shoot the white pattern and set the Iris to obtain 0.4 V OB-WP at B8.** 1. As shown in **Fig. 2-9 (a)**, demount the switching regulator by removing the screw Ⓐ **(Note)** Leave the connector attached. 2. Measure B7, and as shown in **Fig. 2-9 (b)**, adjust the **alignment magnet** and **R305 (FOCUS)** so that the carrier is maximum and the phase lines are clearly observable.  Fig. 2-9 (b) 3. As shown in **Fig. 2-9 (c)**, adjust **R120 (H SAW)**, **R121 (H PB)**, **R122 (V SAW)**, and **R123 (V PB)** so that the waveforms become uniform or disappear.  Fig. 2-9 (c) 4. Adjust **R327 (H CENTER)** so that right-side/left-side balance of the carrier shown in **Fig. 2-9(c)** is equalized. 5. Repeat above steps 2 and 3 until shading is minimized. Also, if necessary, repeat "**2-6. H WIDTH/H LIN Adjustment.**"

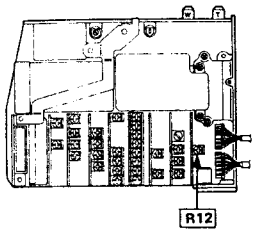
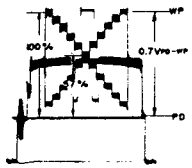
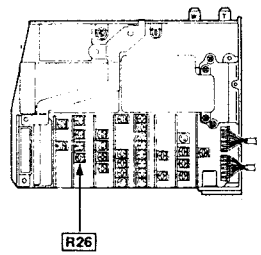
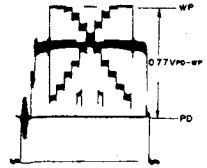
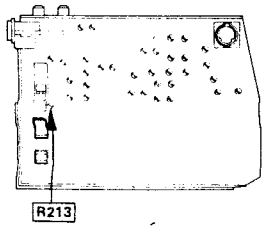
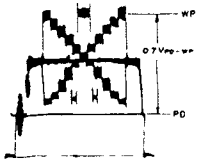
No.	Item	Measuring instrument	Test point and Adjustment part	Description

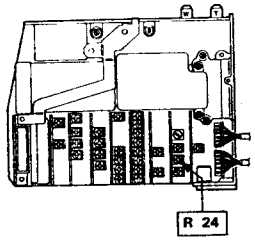
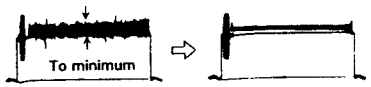
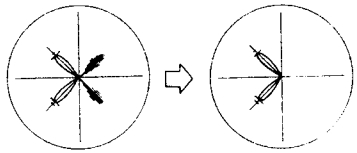
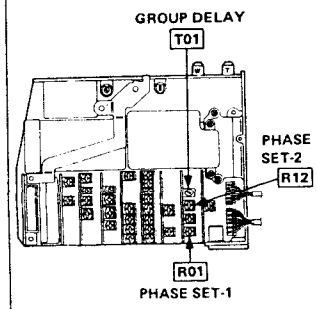
[redacted]

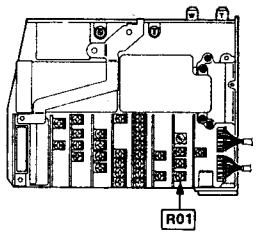
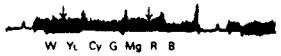
* Certain adjustments in this section require the iris setting to be checked. Be especially careful if the position or direction of the lights have been changed.
Some procedures require a black lens cap.

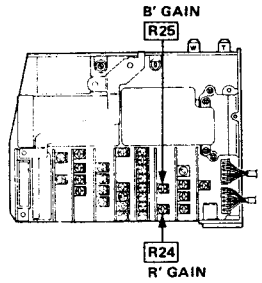
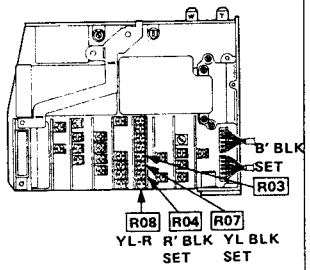
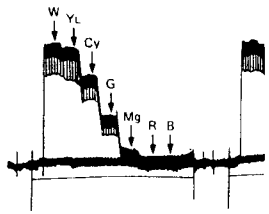
No.	Item	Measuring instrument	Test point and Adjustment part	Description
1.	STAND-ARD SETTING OF THE IRIS	Oscilloscope (H-rate 10:1) Gray scale pattern	(B8) [PRE-PRO BOARD] Illumination lamp IRIS	1. Adjust the position and angle of the lamp so that the lighting becomes uniform all over the gray scale pattern. 2. Adjust the Iris so that a waveform of **0.4V** (optical black-white peak) is obtained on the oscilloscope, as shown in **Fig. 3-1.**  Fig. 3-1
2.	BIAS LIGHT Adjustment	Oscilloscope (H-rate 10:1)	(B8) VIDEO OUT R215 (LIGHT LEVEL) R216 (LIGHT BALANCE) [MOTHER BOARD]  * There may be cases where R216 is not provided.	○ **Close the Iris by lens cap** 1. Maintain the **Y SET-UP** level raised to about **100 mV (refer to Section 3-4).** 2. Conduct fine adjustment of **R215 (LIGHT LEVEL)** (to prevent the **Y SET-UP** level from varying by AGC ON/OFF operation.  Fig. 3-2 3. When the carrier is tilted, adjust **R216 (LIGHT BALANCE).**

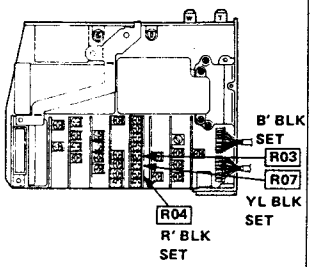
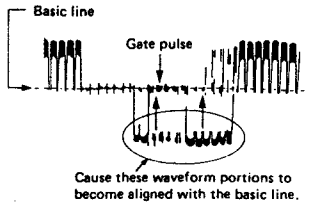
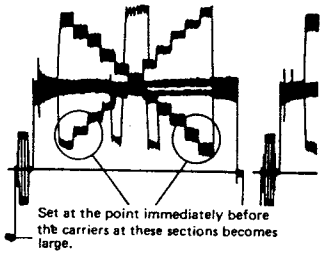
No.	Item	Measuring instrument	Test point and Adjustment part	Description
3.	BL SH COMP.-Y. Adjustment	Oscilloscope (H-rate V-rate 1:1)	(B8) [PRE-PRO BOARD] H BL COMP.-Y VRs R127 (H PB) R126 (H SAW) V BL COMP.-Y VRs R219 (V PB) R218 (V SAW) [MOTHER BOARD] 	○ **Close the Iris by lens cap** 1. Measure (B8) at H-rate, and as shown in **Fig. 3-3 (a),** adjust **R127 (H PB)** and **R126 (H SAW)** so that the carrier becomes flat.  Fig. 3-3 (a) 2. Measure (B8) at V-rate, and as shown in **Fig. 3-3 (b),** adjust **R219 (V PB)** and **R218 (V SAW)** so that the carrier becomes flat. Fig. 3-3 (b) 3. Measure the **VIDEO OUT,** and confirm that AUTO ⟷ MANUAL switching of the IRIS SW. (or AGC SWITCH ON/OFF) causes no Y SET UP level variation. If varied, repeat **"3-2. BIAS LIGHT Adjustment."**
4.	Y SET UP Adjustment	Oscilloscope (H-rate 10:1)	VIDEO OUT R04 (Y SET UP) [ENC BOARD] 	○ **Close the Iris (AGC OFF)** 1. As shown in **Fig. 3-4,** adjust **R04 (Y SET UP)** so that the set-up level becomes **35 mV.**  Fig. 3-4

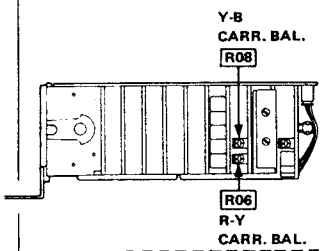
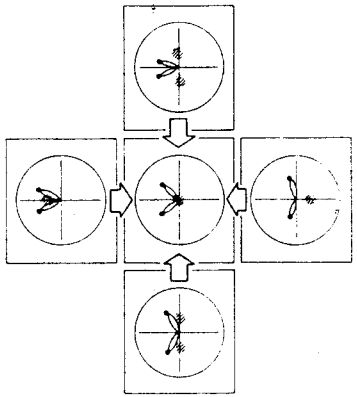
No.	Item	Measuring instrument	Test point and Adjustment part	Description
5.	Y GAIN Adjustment	Oscilloscope (H-rate 10:1) Gray scale pattern	VIDEO OUT R12 (Y GAIN) [PRE-PRO BOARD]  	○ Shoot the gray scale pattern and set the Iris to obtain 0.4V OB-WP at (B8). 1. Adjust **R12 (Y GAIN)** so that the waveform at **VIDEO OUT** becomes **0.7 V PD-WP**.  Fig. 3-5 (Note) The crossing point lies at approx. 57%
6.	Y KNEE Adjustment	Oscilloscope (H-rate 10:1) Gray scale pattern	VIDEO OUT R26 (Y KNEE) [AGC BOARD]  	○ Set the Iris for a value of 0.9 V ~ 1 V PD-WP at **VIDEO OUT**. 1. Adjust **R26 (Y KNEE)** so that the waveform peak are compressed to **0.77V PD-WP**.  Fig. 3-6
7.	AUTO IRIS Adjustment	Oscilloscope (H-rate 10:1) Gray scale pattern	VIDEO OUT R213 (IRIS SET) [MOTHER BOARD]  	○ Set the IRIS SET SWITCH to AUTO. 1. Adjust **R213 (IRIS SET)** so that the waveform becomes **0.7V PD-WP (± 0.021V)**.  Fig. 3-7

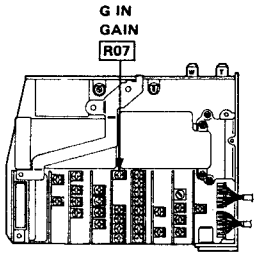
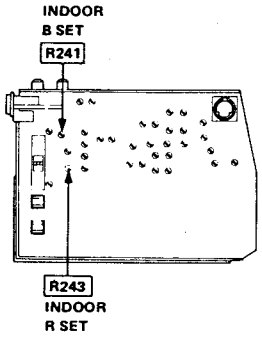
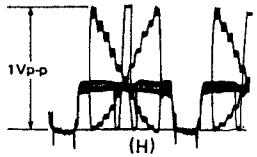
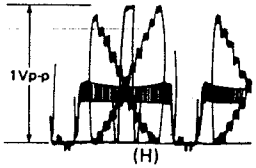
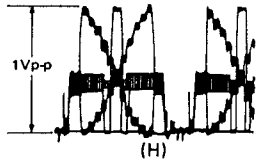
No.	Item	Measuring instrument	Test point and Adjustment part	Description
8.	DC BALANCE Adjustment	Oscilloscope (H-rate 10:1)	VIDEO OUT R24 (DC SET) [C. M. BOARD]  	**Adjustment procedure with oscilloscope** 1. Close the iris. 2. Adjust **R24 (DC SET)** to minimize the noise component of the waveform.  Fig. 3-8 (a)
		Vectorscope	VIDEO OUT	**Adjustment procedure with vectorscope** 1. Close the iris. 2. Adjust **R24 (DC SET)** to minimize the blue portion of the carrier on the vectorscope.  Fig. 3-8 (b)
9. (A)	PHASE SET Adjustment GROUP DELAY	Oscilloscope (H-rate 10:1) White pattern	(J5) (Y-B) R01 (PHASE SET-1) (J6) (R-Y) R12 (PHASE SET-2) T01 (GROUP DELAY) [ENC BOARD] [C.M. BOARD]  	○ Set the IRIS CONTROL SWITCH to AUTO 1. Shoot the white pattern and set **R01 (GROUP DELAY)** fully in the direction that causes the monitor image to become darkest blue. 2. Set **R12 (PHASE SET-2)** to the mechanical center. 3. Simultaneously measure (J5) (Y-B) and (J6) (R-Y), and obtain the ADD mode. 4. While causing **R332 (H LIN-1)** to vary by ±30°, adjust **T01 (GROUP DELAY)** and **R12 (PHASE SET-2)** so that movement of the added waveforms is minimized as shown in **Fig. 3-9**. Fig. 3-9 (a)

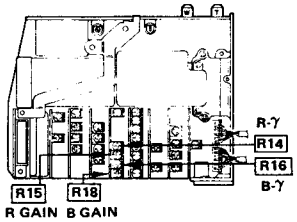
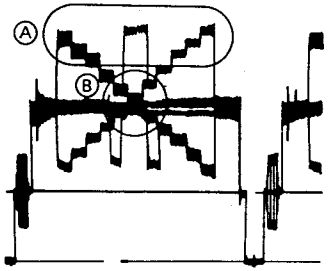
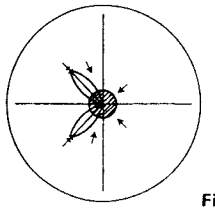
No.	Item	Measuring instrument	Test point and Adjustment part	Descripton
(B)	PHASE SET	Color bar pattern	(D8) (TP-B') R01 (PHASE SET-1) [DET BOARD] [C.M. BOARD]  	○ Shoot the color bar pattern and adjust the iris so that 0.7VPD-WP is obtained. 1. Mount the red filter (R60-46S) on the lens, and as shown in Fig. 3-9 (b), adjust R01 (PHASE SET-1) so that the carrier is minimized. Adjust for minimum carrier concentrated wear base line  Fig. 3-9 (b)

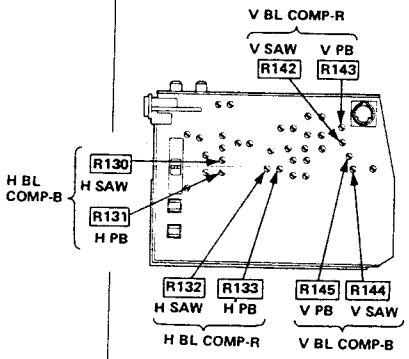
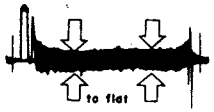
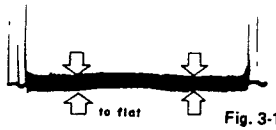
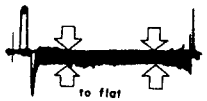
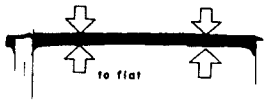
No.	Item	Measuring instrument	Test point and Adjustment part	Description
10.	R' GAIN B' GAIN Adjustment	Oscilloscope (H-rate 10:1) Color bar pattern	(D8) (TP-B') R25 (B'GAIN) (D9) (TP-R') R24 (R' GAIN) [DET BOARD]  	○ Set the IRIS CONTROL SWITCH to AUTO and confirm that the white portion of color bar pattern is 0.7V PD-WP under VIDEO OUT. 1. Measure (D8), and as shown in Fig. 3-10 (a), adjust R25 (B' GAIN) so that white portions become 0.25 Vp-p. 2. Measure (D9), and as shown in Fig. 3-10 (b), adjust R24 (R' GAIN) so that white portions become 0.5 Vp-p. Fig. 3-10 (a) Fig. 3-10 (b)
11.	YL-R Adjustment	Oscilloscope (H-rate 10:1) Color bar pattern	(F12) (TP-B) R03 (B' BLK SET) (F13) (TP-R) R04 (R' BLK SET) (F14) (TP-G) R07 (YL BLK SET) R08 (YL-R) [GAMMA BOARD] [B SET BOARD]  	○ Set the IRIS CONTROL SWITCH to AUTO and confirm that the white portion of color bar pattern is 0.7VPD-WP under VIDEO OUT. 1. Measure (F12), and preset R03 (B' BLK SET) at the point immediately before the carriers collapse. 2. Measure (F13), and preset R04 (R' BLK SET) at the point immediately before the carriers collapse. 3. Measure (F14), and preset R07 (YL BLK SET) at the point immediately before the carriers sink in. 4. Measure (F14) as such, and as shown in Fig. 3-11, adjust R08 (YL-R) so that red (R), and blue (B), levels of the color bar pattern become equal.  Fig. 3-11

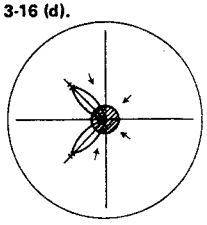
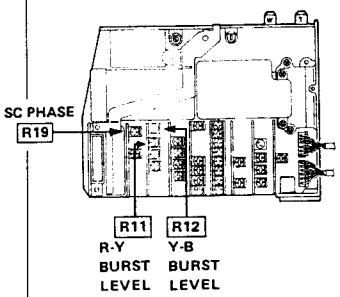
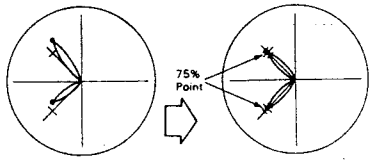
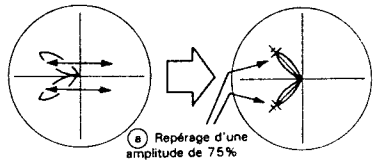
No.	Item	Measuring instrument	Test point and Adjustment part	Description
12.	BLK SET Adjustment	Oscilloscope (H-rate, V-rate, 10:1) Gray scale pattern	(F12) (TP-B) R03 (B' BLK SET) (F13) (TP-R) R04 (R' BLK SET) (F14) (TP-G) R07 (YL BLK SET) [B SET BOARD] [GAMMA BOARD] VIDEO OUT  	○ Set the IRIS CONTROL SWITCH to AUTO 1. Observe (F14) under the "V" rate, and adjust **R07 (YL BLK SET)** so that the protruding waveform portions shown in **Fig. 3-12(a)** are aligned with the **Gate pulse.**  **Fig. 3-12 (a)** (Note) While exercising care not to excessively rotate the VR, stop adjusting immediately when alignment with the basic line is achieved. 2. Measure **VIDEO OUT** at the H-rate, and adjust **R03 (B' BLK SET)** and **R04 (R' BLK SET)** to obtain setting at the point immediately before the carriers at the lower step section shown in **Fig. 3-12(b)** respectively become large.  **Fig. 3-12 (b)** 3. Observe (F12), (F13), and (F14) under the "H" rate, and confirm that the dark waveform portions are not excessibely flattened out. (Note) An ideal status is achieved when the lowest gray-scale edge contacts the basic line.

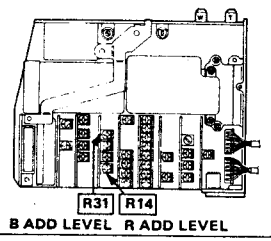
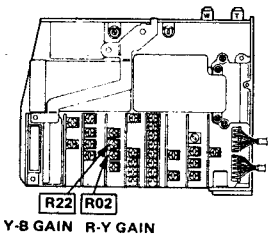
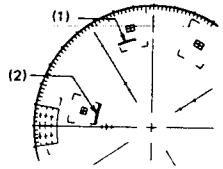
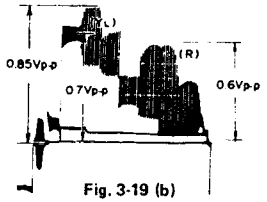
No.	Item	Measuring instrument	Test point and Adjustment part	Description
13.	CARRIER BALANCE Adjustment	Oscilloscope (H-rate, 10:1)	VIDEO OUT R08 (Y-B CARR. BAL.) R06 (R-Y CARR. BAL.) [ENC BOARD]  	**Adjustment procedure with oscilloscope** ○ Close the iris (AGC OFF) 1. Measure **VIDEO OUT** and alternately adjust **R06 (R-Y CARR. BAL.)** and **R08 (Y-B CARR. BAL.)** to minimize the carrier. **Fig. 3-13(a)**
		Vectorscope	VIDEO OUT	**Adjustment procedure with vectorscope** ○ Close the iris (AGC OFF) 1. Adjust **R06 (R-Y CARR. BAL.)** and **R08 (Y-B CARR. BAL.)** so that the carrier comes to the center of the vectorscope.  **Fig. 3-13 (b)**

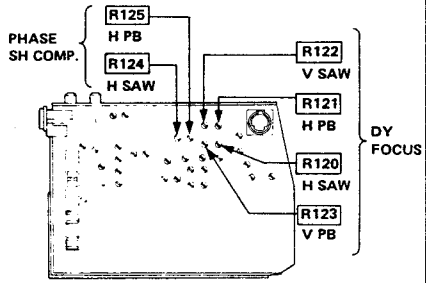
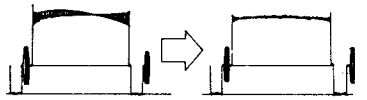
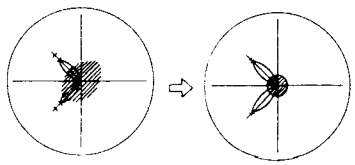
No.	Item	Measuring instrument	Test point and Adjustment part	Description
14.	R, G, B GAIN Adjustment	Oscilloscope (H-rate 10:1) Gray scale pattern	(F12) (TP-B) R241 (INDOOR B SET) (F13) (TP-R) R243 (INDOOR R SET) [MOTHER BOARD] (F14) (TP-G) R07 (G IN GAIN) [GAMMA BOARD] [GAMMA BOARD]   	○ Set the IRIS CNTROL SWITCH to AUTO (Note) The AUTO WHITE SWITCH must be set at the "INDOOR" position. 1. Measure (F14) and adjust R07 (G IN GAIN) so that the portion shown in Fig. 3-14 (a) becomes 1Vp-p.  Fig. 3-14 (a) 2. Measure (F12) and adjust R241 (INDOOR B SET) so that the portion shown in Fig. 3-14 (b) becomes 1Vp-p.  Fig. 3-14 (b) 3. Measure (F13) and adjust R243 (INDOOR R SET) so that the portion shown in Fig. 3-14 (c) becomes 1Vp-p.  Fig. 3-14 (c)

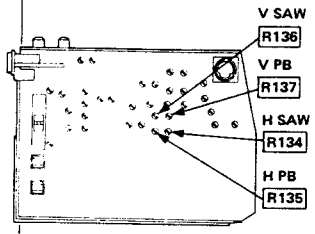
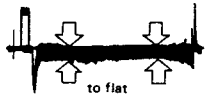
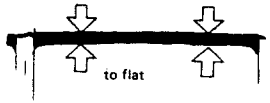
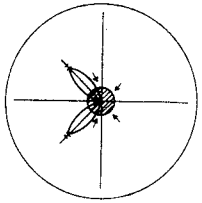
No.	Item	Measuring instrument	Test point and Adjustment part	Description
15.	COLOR γ WHITE BALANCE Adjustment	Oscilloscope (H-rate 10:1) Gray scale pattern	VIDEO OUT R15 (R GAIN) R18 (B GAIN) R14 (R-γ) R16 (B-γ) [GAMMA BOARD]  	**Adjustment procedure with oscilloscope** ○ Set the IRIS CONTROL SWITCH to AUTO 1. Measure the VIDEO OUT, and adjust R15 (R GAIN) and R18 (B GAIN) so that the carrier at section (A) shown in Fig. 3-15 (a) is minimized.  Fig. 3-15 (a) 2. Adjust R14 (R-γ) and R16 (B-γ) so that the carrier at section (B) shown in Fig. 3-15 is minimized. 3. When carriers remain in the dark sections of waveforms, repeat "3-12 BLK SET Adjustment."
		Vectorscope Gray scale pattern	VIDEO OUT	**Adjustment procedure with vectorscope** ○ Set the IRIS CONTROL SWITCH to AUTO 1. As shown Fig. 3-15 (b), adjust R15 (R GAIN), R18 (B GAIN), R14 (R-γ), and R16 (B-γ) so that the carriers converge at the center.  Fig. 3-15 (b) 2. Concurrently observe the oscilloscope, and when carriers are found to be remaining in the dark sections of waveforms, repeat "3-12 BLK SET Adjustment."

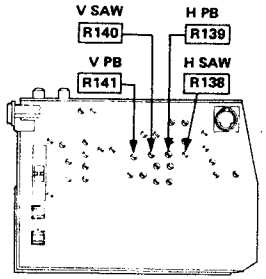
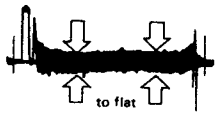
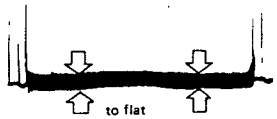
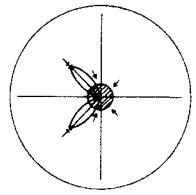
No.	Item	Measuring instrument	Test point and Adjustment part	Description
16.	R, B BL SH COMP. Adjustment	Oscilloscope (H-rate, V-rate, 10:1)	(J5) (Y-B) H BL COMP-B VRs {R131 (H PB) R130 (H SAW) V BL COMP-B VRs {R145 (V PB) R144 (V SAW) (J6) (R-Y) [ENC BOARD] H BL COMP-R VRs {R133 (H PB) R132 (H SAW) V BL COMP-R VRs {R143 (V PB) R142 (V SAW) [MOTHER BOARD] 	**Adjustment procedure with oscilloscope** ○ Attach the lens cap and set the IRIS CONTROL SWITCH to AUTO. 1. Measure (J5) at H-rate, and adjust R131 (H PB) and R130 (H SAW) so that the waveforms become flat.  Fig. 3-16 (a) 2. Measure (J5) at V-rate, and adjust R145 (V PB), and R144 (V SAW) so that the waveforms become flat.  Fig. 3-16 (b) 3. Measure (J6) at H-rate, and adjust R133 (H PB) and R132 (H SAW) so that the waveforms become flat.  Fig. 3-16 (c) 4. Measure (J6) at V-rate, and adjust R143 (V PB) and R142 (V SAW) so that the waveforms become flat.  Fig. 3-16 (d) (Note) After completing this adjustment, reconfirm the white balance and repeat—when required—Steps 3-12 and 3-15.

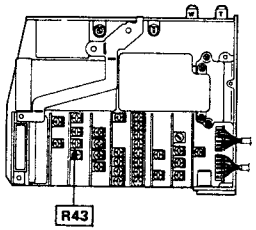
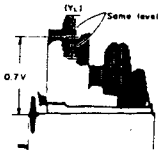
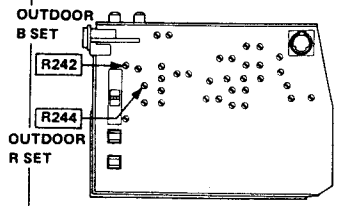
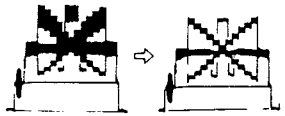
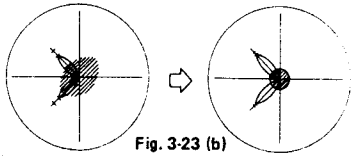
No.	Item	Measuring instrument	Test point and Adjustment part	Description
		Vectorscope	VIDEO OUT	**Adjustment procedure with vectorscope** ○ Attach the lens cap and set the IRIS CONTROL SWITCH to AUTO. 1. Adjust the H BL COMP.-R VRs, H BL COMP.-B VRs, V BL COMP.-R VRs, and V BL COMP.-B VRs so that the carriers converge at the vectorscope center as shown in Fig. 3-16 (d).  Fig. 3-16 (d)
17.	SC PHASE, BURST LEVEL Adjustment	Vectorscope	VIDEO OUT R11 (R-Y BURST LEVEL) R12 (Y-B BURST LEVEL) [AGC BOARD] R19 (SC PHASE) [ENC BOARD] 	○ Close the iris. 1. Turn R19 (SC PHASE) to establish burst level balance, as shown in Fig. 3-17 (a).  2. Adjust R12 (Y-B BURST GAIN) and R11 (R-Y BURST GAIN) to obtain a burst level of 75%, as shown in Fig. 3-17 (b).  (Note) 1. The SC PHASE adjustment can only be performed with a vectorscope. 2. A rough adjustment of BURST GAIN is possible also with an oscilloscope. (Refer to "2-4 Rough Adjustment of the Burst Level.")

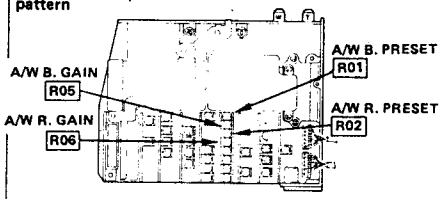
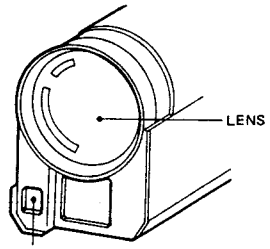
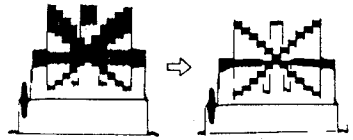
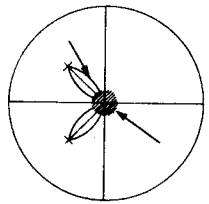
No.	Item	Measuring instrument	Test point and Adjustment part	Description
18.	R ADD, B ADD Adjustment	Oscilloscope (H-rate 10:1) Color bar pattern	(G15) R14 (R ADD LEVEL) (G16) R31 (B ADD LEVEL) [CDP BOARD]  	○ Set the IRIS CONTROL SWITCH to AUTO 1. Measure (G15) and adjust R14 (R ADD LEVEL) so that the carrier becomes flat. 2. Measure (G16) and adjust R31 (B ADD LEVEL) so that the carrier becomes flat. Fig. 3-18
19.	CHROMA GAIN Adjustment	Vectorscope Color bar pattern (CC-2T)	VIDEO OUT R22 (Y-B GAIN) R02 (R-Y GAIN) [CDP BOARD]  	○ Set the IRIS CONTROL SWITCH to AUTO 1. Adjust R02 (R-Y GAIN) so that the red level is positioned at (1), shown in Fig. 3-19 (a). Also adjust R22 (Y-B GAIN) so that the yellow level is positioned at (2), in the same Fig. 3-19 (a).  Fig. 3-19 (a) (Note) When a vectorscope is not available, conduct adjustment by the following method.
		Oscilloscope Color bar pattern (CC-2T)	VIDEO OUT	1. Measure the VIDEO OUT, and adjust R22 (Y-B GAIN) so that the yellow section (YL) shown in Fig. 3-19 (b) becomes 0.85V. 2. Next, adjust R02 (R-Y GAIN) so that the red section (R) becomes 0.6V.  Fig. 3-19 (b) (Note) After adjustment is completed, shoot the subject and confirm that natural coloring is obtained.

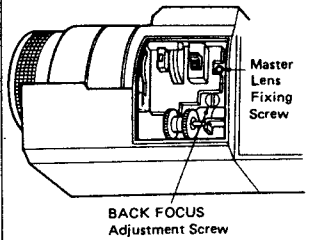
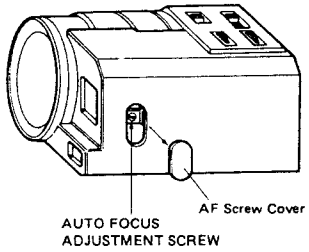
No.	Item	Measuring instrument	Test point and Adjustment part	Description
20.	PHASE SH COMP. Adjustment & FINE Adjustment of DY FOCUS	Oscilloscope (H-rate 10:1) Orange-colored subjects (JVC ORANGE color is preffered.)  	VIDEO OUT PHASE SH COMP. VRs {R124 (H SAW) {R125 (H PB) DY FOCUS VRs {R120 (H SAW) {R121 (H PB) {R122 (V SAW) {R123 (V PB) [MOTHER BOARD]	Adjustment procedure with oscilloscope ○ Set the IRIS CONTROL SWITCH to AUTO 1. Observe the Monitor TV screen while shooting at an orange-colored subject, and adjust R124 (H SAW) and R125 (H PB) so that the entire screen becomes uniformly orange. (Note) Conduct this adjustment only when required. 2. Shoot the white pattern and observe the VIDEO OUT under the H rate. 3. Adjust R120 (H SAW), R121 (H PB), R122 (V SAW), and R123 (V PB) so that the carrier can be minimized and becomes flat.  Fig. 3-20 (a) (Note) Adjustment must be limited to the fine adjustment.
		Vectorscope White pattern	VIDEO OUT	Adjustment procedure with vectorscope ○ Set the IRIS CONTROL SWITCH to AUTO 1. As shown in Fig. 3-20 (b), adjust R124 (H SAW) and R125 (H PB) so that the carrier is minimized and oositioned at the center. 2. Similarily adjust R120 (H SAW), R121 (H PB), R122 (V SAW), and R123 (V PB) so that the carrier is minimized and positioned at the center.  Fig. 3-20 (b)

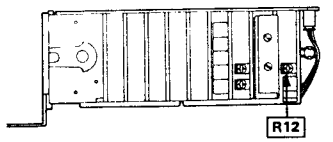
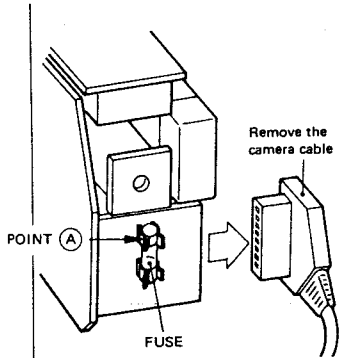
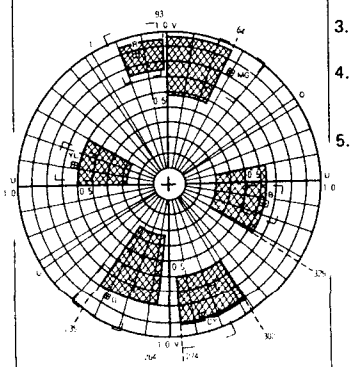
No.	Item	Measuring instrument	Test point and Adjustment part	Description
21.	SHADING COMP. Adjustment (R-CH)	Oscilloscope (H-rate, V-rate, 10:1) White pattern	(J6) (R-Y) SH COMP.-R VR [ENC BOARD] R134 (H SAW) R135 (H PB) R136 (V SAW) R137 (V PB)  	**Adjustment procedure with oscilloscope** ○ **Set the IRIS CONTROL SWITCH to AUTO** 1. Measure (J6) at H-rate and adjust **R134 (H SAW)** and **R135 (H PB)** so that the waveform becomes flat.  **Fig. 3-21 (a)** 2. Measure (J6) at V-rate and adjust **R136 (V SAW)** and **R137 (V PB)** so that the wave form becomes flat.  **Fig. 3-21 (b)**
		Vectorscope White pattern	VIDEO OUT	**Adjustment procedure with vectorscope** ○ **Set the IRIS CONTROL SWITCH to AUTO** 1. Alternately adjust **R134 (H SAW)**, **R135 (H PB)**, **R136 (V SAW)** and **R137 (V PB)** so that the carrier displayed on the vectorscope is positioned at center and minimized.  Fig. 3-21 (c) **(Note)** The adjustment can be facilitated by raising the gain of the vectorscope.

No.	Item	Measuring instrument	Test point and Adjustment part	Description
	(B-CH)	Oscilloscope (H-rate, V-rate, 10:1) White pattern	(J5) (Y-B) SH COMP.-B VRs [ENC BOARD] R138 (H SAW) R139 (H PB) R140 (V SAW) R141 (V PB) [MOTHER BOARD]  	**Adjustment procedure with oscilloscope** ○ **Set the IRIS CONTROL SWITCH to AUTO** 1. Measure (J5) at H-rate and adjust **R138 (H SAW)** and **R139 (H PB)** so that the waveform becomes flat.  **Fig. 3-21 (d)** 2. Measure (J5) at V-rate and adjust **R140 (V SAW)** and **R141 (V PB)** so that the waveform becomes flat.  **Fig. 3-21 (e)**
		Vectorscope White pattern	VIDEO OUT	**Adjustment procedure with vectorscope** ○ **Set the IRIS CONTROL SWITCH to AUTO** 1. Alternately adjust **R138 (H SAW)**, **R139 (H PB)**, **R140 (V SAW)** and **R141 (V PB)** so that the carrier displayed on the vectorscope is positioned at center and minimized.  **Fig. 3-21 (f)** **(Note)** *The adjustment can be facilitated by* raising the gain of the vectorscope.

No.	Item	Measuring instrument	Test point and Adjustment part	Description
22.	CHROMA LIMITER Adjustment	Oscilloscope (H-rate 10:1) Color bar pattern (CC-2T)	VIDEO OUT R43 (CHROMA LIMITER) [AGC BOARD] 	○ Set the iris so that the Y level of Yellow becomes 0.7V under VIDEO OUT (Setting is facilitated by preventing the color from appearing through turning R43). 1. Adjust R43 (CHROMA LIMITER) to a point just before the yellow carrier becomes compressed, as shown in Fig. 3-22.  Fig. 3-22
23.	OUTDOOR R.B GAIN Adjustment	Oscilloscope (H-rate 10:1) Gray scale pattern 	VIDEO OUT R242 (OUTDOOR B SET) R244 (OUTDOOR R SET) [MOTHER BOARD]	**Adjustment procedure with oscilloscope** ○ Set the IRIS CONTROL SWITCH to AUTO 1. Mount a 80B C.C. filter on the lens and set the AUTO WHITE SWITCH to "OUTDOOR." 2. Alternately adjust R242 (OUTDOOR B SET) and R244 (OUTDOOR R SET) to minimize the carrier of the waveform.  Fig. 3-23 (a)
		Vectorscope Gray scale pattern	VIDEO OUT	**Adjustment procedure with vectorscope** ○ Set the IRIS CONTROL SWITCH to AUTO 1. Mount a 80B C.C. filter on the lens and set the AUTO WHITE SWITCH to "OUTDOOR." 2. Alternately adjust R242 (OUTDOOR B SET) and R244 (OUTDOOR R SET) so that the carrier displayed on the vectorscope is positioned at center and minimized.  Fig. 3-23 (b)

No.	Item	Measuring instrument	Test point and Adjustment part	Description
24.	AUTO WHITE BALANCE Adjustment	Oscilloscope (H-rate 10:1) Gray scale pattern   AUTO WHITE SENSOR Fig. 3-24 (a)	VIDEO OUT R01 (A/W B. PRESET) R02 (A/W R. PRESET) R05 (A/W B. GAIN) R06 (A/W R. GAIN) [B. SET BOARD]	**Adjustment procedure with oscilloscope** ○ Set the IRIS CONTROL SWITCH to AUTO 1. Set the AUTO WHITE SWITCH to "AUTO" and preset R05 (A/W B. GAIN) and R06 (A/W R. GAIN) at the mechanical centers. 2. As shown in Fig. 3-24 (b), adjust R01 (A/W B. PRESET) and R02 (A/W R. PRESET) so that the carrier is minimized. 3. Next, mount W4 C.C. filter on lens and mount No. 80B C.C. filters on both the lens and the A/W sensor (refer to Fig. 3-24 (a)), and as shown in Fig. 3-24 (b), adjust R05 (A/W B. GAIN) and R06 (A/W R. GAIN) so that the carrier is minimized.  Fig. 3-24 (b) 4. Repeat above steps 2 and 3, and adjust so that carrier difference between the two is eliminated.
		Vectorscope Gray scale pattern  Fig. 3-24 (c)	VIDEO OUT	**Adjustment procedure with vectorscope** ○ Set the IRIS CONTROL SWITCH to AUTO 1. Set the AUTO WHITE SWITCH to "AUTO" and preset R05 (A/W B. GAIN) and R06 (A/W R. GAIN) at the mechanical centers. 2. As shown in Fig. 3-24 (c), adjust R01 (A/W B. PRESET) and R02 (A/W R. PRESET) so that the carrier is positioned at the center. 3. Next, mount W4 C.C. filter on lens and mount No. 80B C.C. filters on both the lens and the A/W sensor (refer to Fig. 3-24 (a)), and as shown in Fig. 3-24 (c), adjust R05 (A/W B. GAIN) and R06 (A/W R. GAIN) so that the carrier is positioned at the center. 4. Repeat above steps 2 and 3, and adjust so that carrier transfer between the two is eliminated.

No.	Item	Measuring instrument	Test point and Adjustment part	Description
25.	BACK FOCUS Adjustment	Monitor TV Siemens chart	VIDEO OUT Back Focus Adjustment Screw  Fig. 3-25 (a)	○ **Open the iris in a dark location.** 1. Place the **Siemens chart** at least 3 m from the camera. (The chart should be placed as far away as possible.) 2. Adjust the focus to the chart in the TELE position and confirm that the focus is not disturbed when the camera is set to the WIDE position. 3. If the focus is disturbed, loosen the **Master Lens Fixing Screw** and then adjust the **Back Focus with the back focus adjustment tool** until correct focus is established. 4. Repeat **step 3 and 4** as necessary to obtain optimum focus.
26.	AUTO FOCUS Adjustment	Monitor TV Siemens chart	VIDEO OUT AUTO FOCUS ADJ. Screw  Fig. 3-26	○ **Open the iris in a dark location.** 1. Detach the screw cover shown in **Fig. 3-26.** 2. Place the **Siemens chart** 2 m distant from the lens and shoot this chart after turning the ZOOM RING fully to the TELE side. 3. Set the **FOCUS SWITCH** to "**AUTO**." 4. Rotate the FOCUS RING to the near end/far end to cause AUTO FOCUS operation, and confirm that optimum focus is obtained. 5. If the focus is disturbed, rotate the **AUTO FOCUS ADJ. SCREW** while keeping the **FOCUS SWITCH** set at "**AUTO**," and by adjusting this screw, obtain optimum focus. 6. After adjustment is completed, reinstall the screw cover. **(Note)** Under adjustment in this section, only the measuring distance can be adjusted. As to adjustment of the infrared-ray spot, refer to the Lens Manual.

No.	Item	Measuring instrument	Test point and Adjustment part	Description
27.	BATTERY ALARM Adjustment	DC Power Supply, DC DC Voltmeter	R LED in EVF R12 (ALARM SET)   Fig. 3-27	○ **Disconnect the camera cable.** 1. Connect a DC power supply and DC voltmeter to **Point** Ⓐ shown in the chart on the left, and apply exactly **10.8V.** 2. Adjust **R12 (ALARM SET)** to the point where **LED (R)** in the electronic viewfinder just stops flickering and goes out.
28.	FINAL CHECK	Vectorscope Oscilloscope Color bar pattern, Gray scale pattern & Others	VIDEO OUT  Fig. 3-28	1. Shoot the color bar pattern (CC-2T) in the Auto Iris mode and display the result on a vectorscope. Confirm that the respective color carriers are at the locations indicated in the chart on the right. 2. If the results are not satisfactory, perform readjustment in **3-9, 3-17, 3-19,** etc. 3. Check the operation of Iris Compensation as well as all other switches and functions. 4. Shoot the gray scale pattern and check γ, White Balance, Carrier Balance, Y SET UP etc. at VIDEO OUT. 5. Shoot an appropriate subject and check colors, camera functions etc.

- **Preparation**
  - ○ Proceed with this adjustment after completing adjustment of the camera body side (except when only the EVF is to be adjusted).
    When only the EVF is to be adjusted, use a 5V supply voltage and **EVF VIDEO** signal of the standard signal level (**2Vp-p**).

- **Presetting**
  1) **Iris switch** → " A " (AUTO)
  2) " Ⓐ **Iris compensation**" **switch** → "0"
  3) **White balance** → " ▼ " (INDOOR)
  4) **R860 BRIGHT VR** → **To obtain a picture**

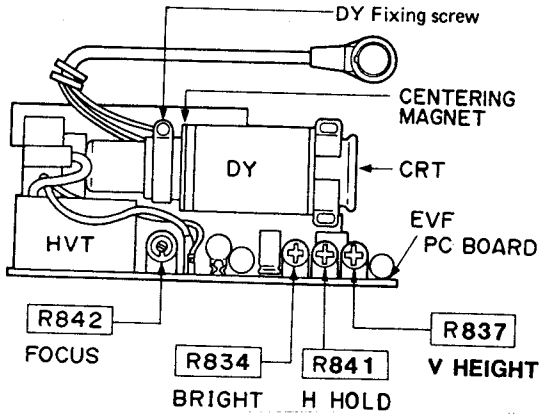


Fig. 4-1 Adjustment location of EVF

- **Adjusting procedures**

	ITEM	PATTERN OR SUBJECT	ADJUSTMENT PARTS	ADJUSTING METHOD
1	**HORIZONTAL SYNC**	Any gray scale pattern, monoscope pattern, or or resolution pattern is OK.	**R841 H. HOLD VR**	1) Set **R841 H. HOLD VR** fully-counterclockwise (in the high H. freq. direction) **Fig. 4-2 (A)** 2) Return **R841 H. HOLD VR** clockwise. Stop turning it when synchronization is adjusted and the bend appearing on the screen upper portion ⓐ is corrected. **Fig. 4-2 (A) → (B) → (C)** **(Note)** Adjustment is facilitated when conducted while shooting a linear pattern such as a color bar pattern.

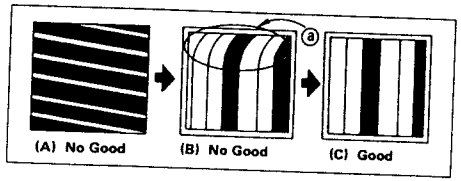


Fig. 4-2 Adjustment of H. HOLD (using Color bar pattern)

	ITEM	PATTERN OR SUBJECT	ADJUSTMENT PARTS	ADJUSTING METHOD
2	**VERTICAL AMPLITUDE**	Monoscope pattern or crosshatch pattern	**R837 V. HEIGHT VR**	Adjust **R837 V. HEIGHT VR** so that the amplitude of the pattern is normal.
3	**PICTURE LOCATION**		**Centering magnet of the Deflection Yoke**	Adjust the **CENTERING MAGNET** so that the center of the pattern coincides with the center of the frame of the EVF screen.
4	**BRIGHTNESS**	Gray scale pattern	**R834 BRIGHT VR**	Turn the **R834 BRIGHT VR** while observing the EVF screen and stop turning it just before the pattern's black portion becomes invisible. **(Note)** Shoot the gray scale pattern so that it fills the whole area of the frame.
5	**SCREEN TILT/SCAN WIDTH ADJUSTMENT**	Mono SCO pattern or cross hatch pattern	**D.Y. installation position**	1. Loosen the D.Y. fixing screw. 2. Rotate the D.Y. and cause the screen to become horizontal against the mask. 3. Move the D.Y. forward and backward so that the scan width becomes about 90% overscanned. 4. Tighten the D.Y. fixing screw and then confirm that the screen position has not deviated.
6	**FOCUS**	Gray scale pattern or monoscope pattern	**R842 FOCUS VR**	While monitoring the EVF screen turn **R842 FOCUS VR** as far right as possible, as long as the picture is in good focus.
7	**HIGH VOLTAGE CHECK**		———	Connect the high voltage meter of CRT anode and make sure that the meter indicator is within **2.5 ± 0.5 kV.**
8	**FINAL CHECK**	Shoot patterns or other subjects and operate **zoom, focus, iris control switch,** VTR switch, etc.. Thus make sure that brightness, contrast, focus, size and location of the picture, **iris indication, VTR start/stop indication** are all proper. Operate also the WHITE BALANCE SWITCH and make sure that white balance indication (LED indication on the CRT mask area) is properly achieved. Further reduce the camera supply voltage (12V input) and make sure that **battery alarm indication** on the EVF is properly achieved when the voltage is below **ca. 10.8V.**		

GX-N7E

INTRODUCTION AND REPAIR SERVICE
INTRODUCTION ET SERVICE DE REPARATION
FINFÜHRUNG UND REPARATUREN

No. 5550
July 1984

For details on lens repair (parts, repairing classification, adjustment, etc.), refer to CLC02206-A-BFZ LENS SERVICE MANUAL No. 5506L.

CONTENTS

CAMERA CABLES 2E
SPECIFIC SERVICE AND PRECAUTIONS 3E
REMOVING THE OUTSIDE COMPONENTS 7E
- REMOVING THE DETACHABLE MICROPHONE 7E
- REMOVING THE ELECTRONIC VIEWFINDER (EVF) 7E
- REMOVING THE LENS 8E
- REMOVING THE CAMERA BODY COVER 9E
- REMOVING THE SWITCHING REGULATOR 11E
- REMOVING THE MOTHER BOARD 11E
- REMOVING THE PREAMPLIFIER BOARD 11E
- REPLACING THE PICKUP TUBE 12E
- DISASSEMBLY & REPLACEMENT OF BIAS LIGHT & OPTICAL LOW-PASS FILTER 13E
- REMOVING THE GRIP BELT 13E
- REMOVING THE VTR SWITCH 14E
- DISASSEMBLING THE ELECTRONIC VIEWFINDER (EVF) 14E
- REMOVING THE EVF BOARD AND CRT 16E

Pour les détails concernant la réparation de l'objectif (pièces, clasification de réparation, réglages, etc.), se référer au MANUEL DE SERVICE DE L'OBJECTIF CLC02206-A-BFZ No. 5506L.

TABLES DES MATIERES

CABLES DE CAMERA 2F
SERVICE SPECIFIQUE ET PRECAUTIONS 3F
DEPOSE DES COMPOSANTS EXTERIEURS 7F
- DEPOSE DU MICROPHONE DETACHABLE 7F
- DEPOSE DU VISEUR ELECTRONIQUE (VE) 7F
- DEPOSE DE L'OBJECTIF 8F
- DEPOSE DU COUVERCLE DU BOITIER DE LA CAMERA 9F
- DEPOSE DU REGULATEUR DE COMMUTATION 11F
- DEPOSE DE LA PLAQUETTE MERE 11F
- DEPOSE DE LA PLAQUETTE DE PREAMPLICATION 11F
- REMPLACEMENT DU TUBE ANALYSEUR 12F
- DEMONTAGE ET REMPLACEMENT DE LA LAMPE DE POLARISATION ET FILTRE PASSE-BAS OPTIQUE 13F
- DEPOSE DE LA CEINTURE DE POIGNEE 13F
- DEPOSE DU COMMUTATEUR VTR 14F
- DEMONTAGE DU VISEUR ELECTRONIQUE (VE) 14F
- DEPOSE DE LA PLAQUETTE DU VISEUR ELECTRONIQUE ET DU TRC 16F

Einzelheiten über Objektivreparatur (Teile, Reparaturklassifikation, Einstellung usw.) sind dem OBJEKTIV-SERVICEHANDBUCH CLC02206-A-BFZ Nr. 5506L zu entnehmen.

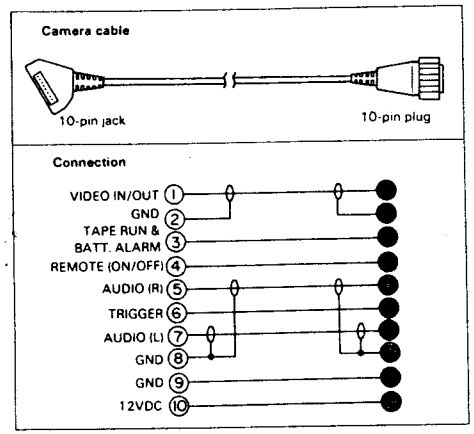
INHALTSVERZEICHNIS

KAMERAKABEL 2G
BESONDERER SERVICE UND VORSICHTSMASSNAHMEN 3G
ABNEHMEN DER ÄUSSEREN TEILE 7G
- ABNEHMEN DES ABNEHMBAREN MIKROFONS 7G
- ABNEHMEN DES ELEKTRONISCHEN SUCHERS 7G
- ABNEHMEN DES OBJEKTIVS 8G
- ABNEHMEN DES KAMERAGEHÄUSEDECKELS 9G
- ABNEHMEN DES SCHALTREGLERS 11G
- ABNEHMEN DER HAUPTLEITERPLATTE 11G
- ABNEHMEN DER VORVERSTÄRKER-LEITERPLATTE 11G
- AUSTAUSCH DER AUFNAHMERÖHRE 12G
- ZERLEGEN & AUSTAUSCH DES VORSPANNUNGSLICHT- & OPTISCHEN ANSCHALTFILTERS 13G
- ABNEHMEN DES GRIFFRIEMENS 13G
- ABNEHMEN DES VIDEORECORDERSCHALTERS 14G
- ZERLEGEN DES ELEKTRONISCHEN SUCHERS 14G
- ABNEHMEN DER LEITERPLATTE DES ELEKTRONISCHEN SUCHERS UND DER BILDRÖHRE 16G

CAMERA CABLES

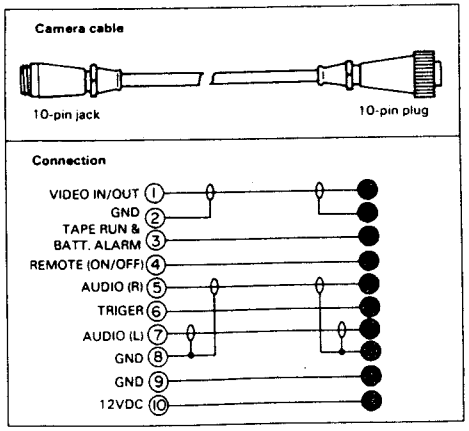
The standard camera cable provided (**VC-444-2E**) can be used with VCR's (VTR's) that have camera connecting terminals. For other types of VCR's (VTR's), use an optional camera cable (**VC-409-3** or **VC-409-3ST**) together with the **VC-444-2E**. An extension cable for the GX series is also available. Briefly, the camera cables are subdivided into the following types:

(1) 10-pin jack/10-pin plug camera cable
VC-444-2E ..... 2m (provided)

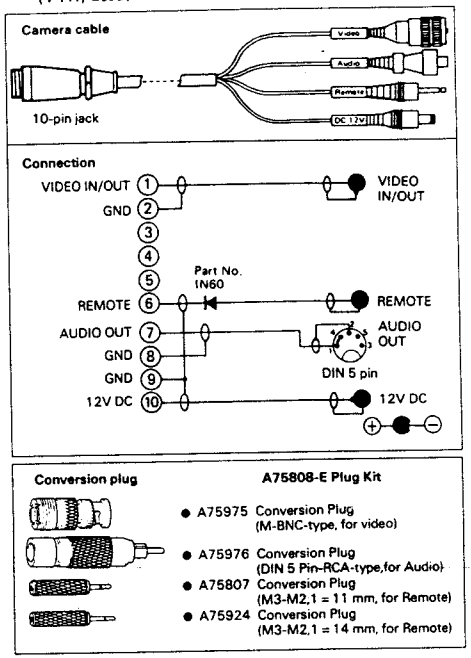


*Cut the No. 5 lead wire on the 10-pin plug side only when using the camera by connecting the CR-4400.

(2) 10-pin jack/10-pin plug extension cable
VC-235-10(U). ..... 10 m (option)
* Do not use more than one extension cable.

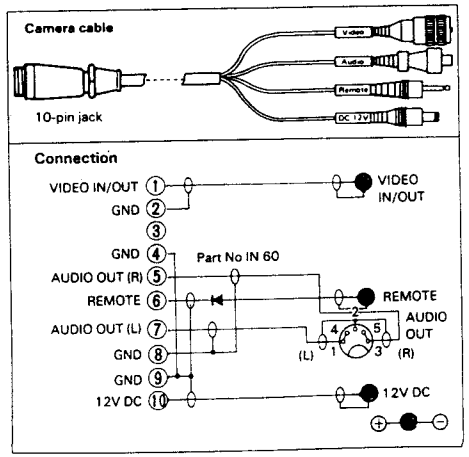


(3) 10-pin jack/multiplug camera cable
VC-409-3 ..... 3 m (option)
* It comes with the conversion plug shown below. Select the conversion plug according to the type of the VCR (VTR) used.



Conversion plug
A75808-E Plug Kit
● A75975 Conversion Plug (M-BNC-type, for video)
● A75976 Conversion Plug (DIN 5 Pin-RCA-type,for Audio)
● A75807 Conversion Plug (M3-M2,1 = 11 mm, for Remote)
● A75924 Conversion Plug (M3-M2,1 = 14 mm, for Remote)

(4) 10-pin jack/multiplug camera cable (STEREO)
VC-409-3ST. ..... 3 m (option)
* For stereo recording with a stereo VCR (VTR), use this cable with **VCC-444-2E**.



SPECIFIC SERVICE AND PRECAUTIONS

1. *Volume adjustment*

This camera permits direct adjustment of the following volumes without removing the camera body cover:

①	R305	FOCUS	
②	R06 and R08	CARRIER BALANCE	
③	R834	BRIGHTNESS	(EVF section)
④	R842	FOCUS	
⑤	R837	V. HEIGHT	
⑥	R841	H. HOLD	

If any adjustments must be made, carefully follow the procedures below. Do not change these volumes unless absolutely necessary.

(1) Adjusting the CARRIER BALANCE and FOCUS

① As shown in **Fig. 1-2**, the **CARRIER BALANCE VR** can be adjusted from the bottom of the camera.

② As shown in **Fig. 1-3**, the **FOCUS VR** can be adjusted from the side of the camera.

(2) Adjusting the BRIGHTNESS, FOCUS, V. HEIGHT and H. HOLD in the Electronic Viewfinder (EVF) section.

① Remove the EVF food.

② As shown in **Fig. 1-4**, the **BRIGHTNESS, FOCUS, V. HIGHT** and **H. HOLD** can be adjusted at the bottom of the EVF section.

2. Camera settings made at the factory

This camera's switches are preset at the factory as follows:

①	Iris compensation switch	→ "0"
②	White balance button	→ " " (IN DOOR)
③	Focus switch	→ "AUTO"
④	Iris switch	→ " "

* For the positions of other switches, refer to the related instruction manuals.

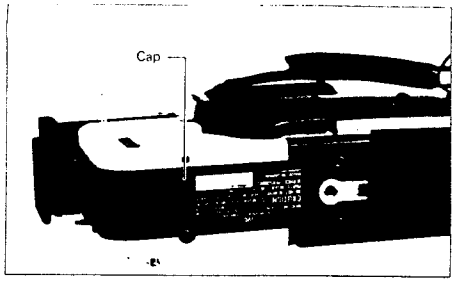


Fig. 1-1 Adjusting the CARRIER BALANCE (1)

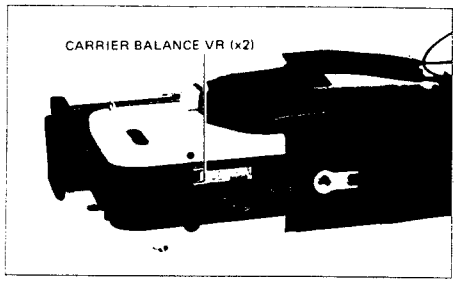


Fig. 1-2 Adjusting the CARRIER BALANCE (2)

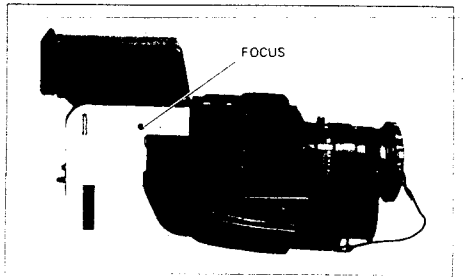


Fig. 1-3 Adjusting the FOCUS

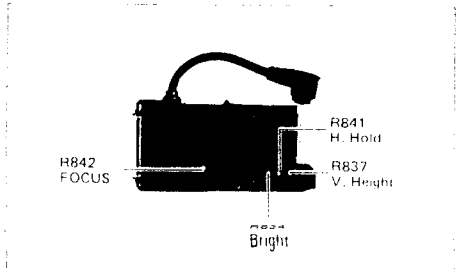


Fig. 1-4 Adjusting the FOCUS, BRIGHTNESS, V. HEIGHT and H. HOLD

3. STEREO/MONO Switch

This camera can be used in combination with a stereo VCR(VTR) to record in stereo.

When using it with a MONO VCR(VTR), be sure to set the STEREO/MONO switch to the MONO position. If not, sound will only be recorded in the left channel, resulting in incomplete soundtrack.

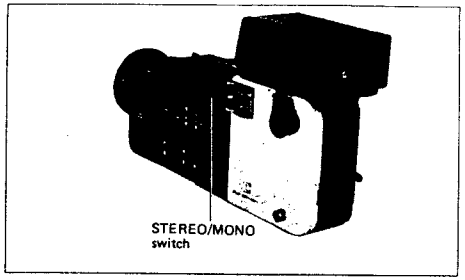


Fig. 3-1 Setting the STEREO/MONO Switch

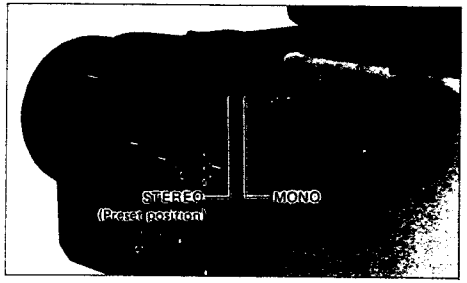


Fig. 3-2 Setting the STEREO/MONO Switch

4. VCR(VTR) compatibility switch

Even when the camera is connected to a VHS-type VCR (VTR), the VCR(VTR) itself may have reversed stop and start functions that require the camera's preset compatilitlity switch to be reset.

This problem is indicated by incoherent images in the camera viewfinder.

If switch adjustment is necessary, please observe the following procedures.

① Remove cover shown in **Fig. 4-1** with a screwdriver.

② Set switch shown in **Fig. 4-2** for the type of VCR (VTR) to be used.

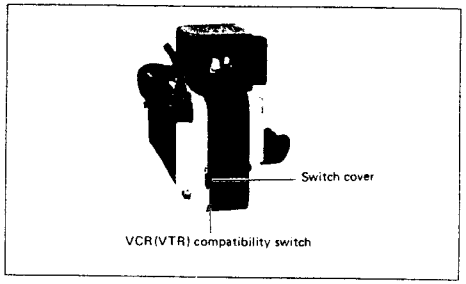


Fig. 4-1 Setting the VCR(VTR) compatibility switch (1)

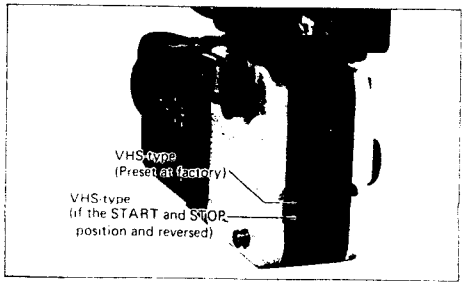


Fig. 4-2 Setting the VCR(VTR) compatibility switch (2)

5. **Two-side through-hole PCB**

A two-side through-hole PCB is used on this camera. Patterns and wires are designed extra slim to attain high-density component mounting. Rough handling may damage the patterns/wires or other components. When disassembling, repairing, or adjusting the PC boards, exercise care to **avoid damage.**

6. When repairing the circuit board modules, please note that the camera's various circuits are all contained on separate independent circuit boards. Each circuit board can be removed and repaired separately.

(1) Removing circuit board module

Use a solder sucker and completely remove solder before pulling out circuit board. As shown in **Fig. 6** use a soldering iron with a thin channeled tip, melt the solder and quickly pull out the circuit board.

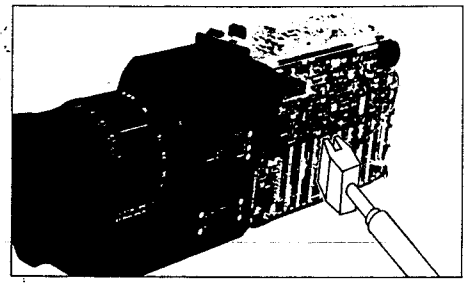


Fig. 6 Removing circuit board module

NOTE:

- Take care not to damage or remove solder from other parts.
- If more than two circuit boards are removed, make sure that they are replaced in the proper positions.

7. **Replacing chip components**

Use a soldering iron (temperature 260° ~ 300°C, about 17W) with a slim tip and high insulating ability. Those with a solder sucker (about 55W) are usually easier to use.

NOTE: This video camera uses many mini-flat ICs. To remove these, melt the solder or cut off the IC pins. Take care not to scratch or peel off the BOARD foil pattern.

8. **Chip components display**

Besides the resistors, short jumpers, FET's, ceramic capacitors, transistors, and other chip components, the chip tantalum capacitors and chip volume are used on the camera. None of these chip components are reusable again once they are used.

NOTE: 1. Avoid rough handling of the VR.
2. Use a thin-tip insulated-type screwdriver to adjust the CH VR.

■ **How to read printings**

On certain chip components, printing is applied as follows:

① Chip metal glaze resistor (CH MG R)

The diagram shown in **Fig. 8-1** Ⓐ is applied to some of these resistors.

Reading method (Example)

123 = 12 × 10^3 Unit: [Ω]

② Short jumper (0 [Ω] of CH MG R)

No diagram is applied to short jumpers. A "0" display is applied to Type Ⓐ shown in **Fig. 8-1.**

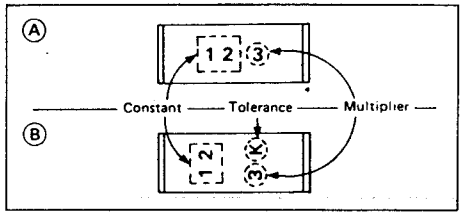


Fig. 8-1 Example of CH MG R/CH C Cap. codes

③ Chip ceramic capacitor (CH C Cap.)

- The diagram shown in **Fig. 8-1** Ⓑ is applied to some of the CH C Caps. On some others, there is no diagram that is of any use to users.

Reading method (Example)

1 2 3 K = 12 × 10^3 Unit: [PF], Tolerance: K (± 10%)

- As shown in **Fig. 8-2** some chip ceramic capacitors are represented by two digits. **Table 8-1** shows how those figures should be read.

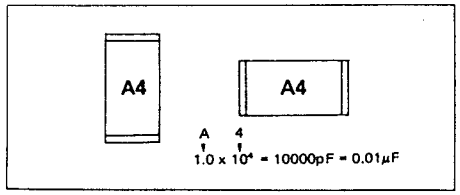


Fig. 8-2 Example of CH C Cap.

Alphabet	A	B	C	D	E	F	G	H	J	K
Constant	1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.2	2.4
Alphabet	L	M	N	P	Q	R	S	T	U	V
Constant	2.7	3.0	3.3	3.6	3.9	4.3	4.7	5.1	5.6	6.2
Alphabet	W	X	Y	Z		a	b	d	e	f
Constant	6.8	7.5	8.2	9.1		2.5	3.5	4.0	4.5	5.0
Alphabet	m	n	t	y						
Constant	6.0	7.0	8.0	9.0						

Numeral	0	1	2	3	4	5	6	7	8	9
Multiplier	10^0	10^1	10^2	10^3	10^4	10^5			10^{-2}	10^{-1}

Table 8-1 CH C Cap. capacity value

④ Chip Variable Resistor (CH VR)

A two-digit code is printed on some CH VRs. They indicate a reading method, as shown in **Table 8-2.**

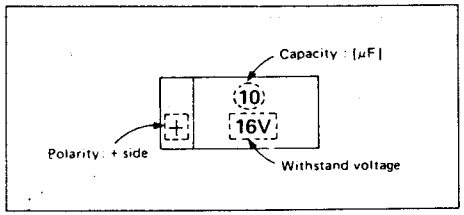
Three-digit codes are also used. These codes are read in the same way as those for CH MG R.

⑤ Chip Tantalum Capacitor (CH Tan. Cap.)

The diagram shown in **Fig. 8-3** is applied to some of the CH Tan. Caps.

Reading method (Example)

The type shown in **Fig. 8-3** is 10 μF, 16 WV chip tantalum capacitor.



Fit. 8-3 Example of CH Tan. C Cap. codes

⑥ Chip Transistor

The labels shown in **Table 8-3** are applied to the chip transistor.

Part No.	Display method
2SC2778(B, C, D)	K . B K . C K . D denotes 2SC2778 — parts ranking : B
2SC2404(D)	U . D
2SD601(Q, R)	Y . Q Y . R
2SD601A(Q, R)	Z . Q Z . R
2SD1030(R)	1ZR
2SB709(P-R)	A . P A . Q A . R
2SB792(Q-T)	I . Q I . R I . S I . T
2SB970(Q-S)	1RQ 1RR 1RS
2SA1022(C)	E . C

Table 8-3 Chip transistor labels

⑦ Chip FET

The following printing is applied to the Chip FET.

Part No.	Coding method
2SK198 (Q)	10 Q denotes 2SK198 — parts ranking: Q

Table 8-4 Chip FET codes

⑧ Chip Diode

The following labels are applied to the Chip Diode.

Part No.	Coding method
MA151WA	M . N denotes MA151
MA151K	M . H
MA151WK	M . T
MA151A	M . A
MA157	M . R
MA3047-L	4.7L

Table 8-5 The display of chip diode

Code	12	22	32	52	72	13	23	33	53	73	14
Resistance Value	100Ω	220Ω	330Ω	470Ω	680Ω	1kΩ	2.2kΩ	3.3kΩ	4.7kΩ	6.8kΩ	10kΩ
Code	24	34	54	74	15	25	35	55	75	16	
Resistance Value	22kΩ	33kΩ	47kΩ	68kΩ	100kΩ	220kΩ	330kΩ	470kΩ	680kΩ	1MΩ	

Table 8-2 CH VR resistance value display method in two-digit

REMOVING THE OUTSIDE COMPONENTS

DISASSEMBLING/REPLACING EACH COMPONENT

- Before removing components, be sure to cut off the power supply.
- When disassembling and repairing parts, be sure to place the lens cap on the pickup tube to protect it.

■ REMOVING THE DETACHABLE MICROPHONE

Remove the detachable microphone in the direction of arrow in Fig. 1.

NOTE: Be careful in handling the hood as it tears easily.

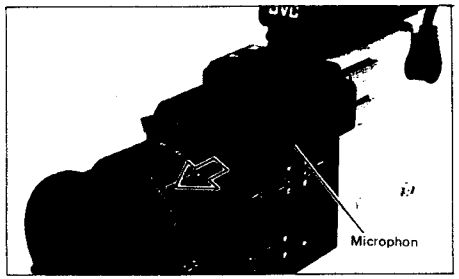


Fig. 1 Removing the detachable microphone

■ REMOVING THE ELECTRONIC VIEWFINDER (EVF)

1. Remove the connector shown in Fig. 2-1.
2. Remove the two screws (a) shown in Fig. 2-2.
3. Demount the EVF by removing the two screws (b) shown in Fig. 2-3.

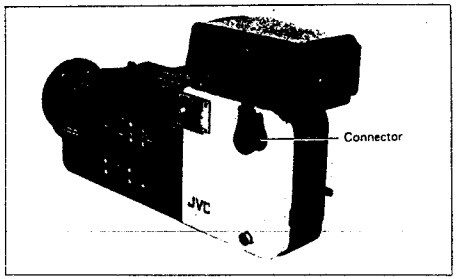


Fig. 2-1 Removing the electronic viewfinder (EVF)

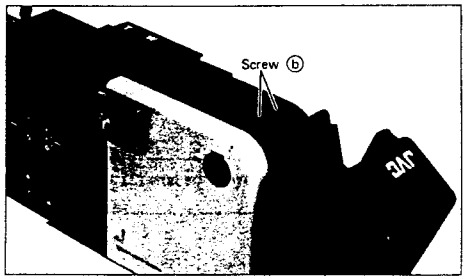


Fig. 2-3 Removing the electronic viewfinder (EVF)

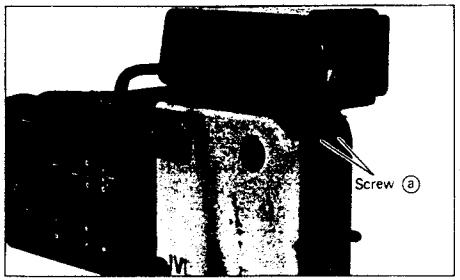


Fig. 2-2 Removing the electronic viewfinder (EVF)

■ REMOVING THE LENS

1. Removing screw (a) shown in Fig. 3-1 will allow the grip cover to be removed.
2. Remove the grip cover with connectors R and S shown in Fig. 3-2.

NOTE: If connectors had removed from grip cover, the S connector goes to the top and the R connector goes to the bottom. Please note when mounting.

3. Remove the screw (b) shown in Fig. 3-2.
4. Turn the lens in the direction of the arrow as shown in Fig. 3-3.
5. The lens can be removed by pulling it in the direction of the arrow as shown in Fig. 3-4.

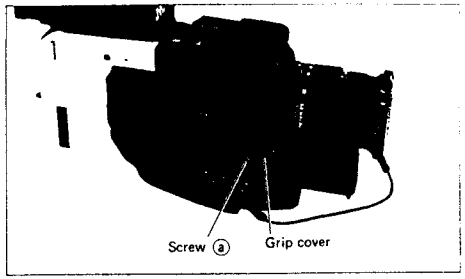


Fig. 3-1 Removing the lens (1)

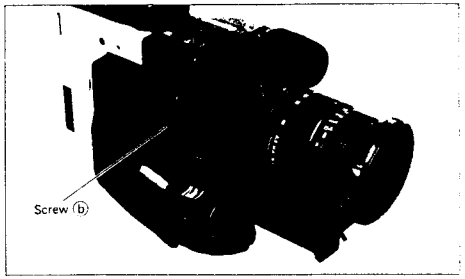


Fig. 3-2 Removing the lens (2)

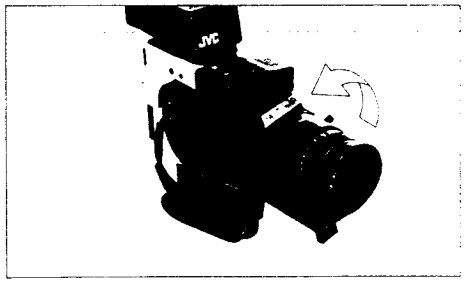


Fig. 3-3 Removing the lens (3)

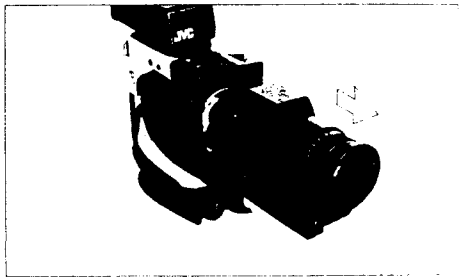


Fig. 3-4 Removing the lens (4)

■ REMOVING THE CAMERA BODY COVER

* Demount the EVF (Refer to the section "Removing the Electronic Viewfinder (EVF)").

1. Remove the **four** (a) **screws** and **the two** (b) **screws as shown in Fig. 4-1.**
2. As shown in Fig. 4-2, lift section (A), and pull it in the direction of (B). Then, remove the top cover and electronic viewfinder by pulling in direction (C).
3. Remove the **screws** (c) and (d) shown in **Fig. 4-3** to remove the grip cover and grip belt.

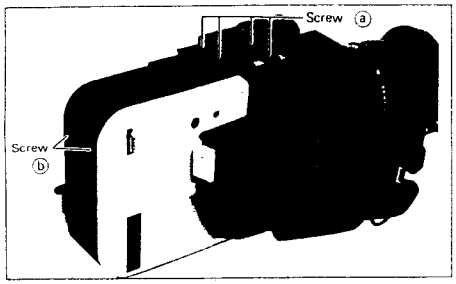


Fig. 4-1 Removing the camera body cover (1)

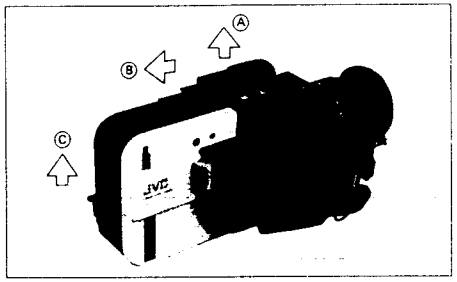


Fig. 4-2 Removing the camera body cover (2)

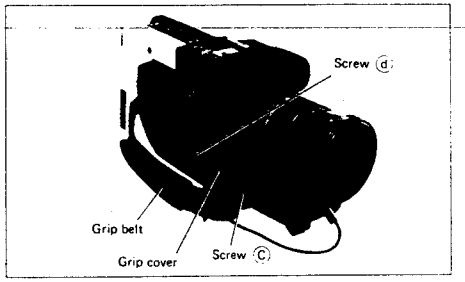


Fig. 4-3 Removing the camera body cover (3)

4. Remove **screws** (e), (f) and the **two** (g) screws shown in **Fig. 4-4.**
5. Remove the **four** (h) **screws** shown in **Fig. 4-5.**
6. Removing the **connector** shown in **Fig. 4-6** will allow the left and right body covers to be removed.

NOTE: 1. The tapped knob and slide knob are removed together with the cover. Be careful that they are not lost.
2. By removing the cover, the plate nut becomes disengaged, creating the hazard of causing it to contact the **board**, Be sure to turn the power supply OFF prior to removing the cover.

* Adjusting is done with the unit in this condition, however, be sure to connect **R** and **S connectors.**
Remove the cover of the carrier balance VR.
The bottom cover should also be removed when adjusting BATT. ALARM and SSG.

NOTE: 3. The lens should be removed before disassembling the body cover. The lens should be replaced after the bottom cover has been disassembled.
4. When supplying power with the R and S connectors removed, exercise care not to cause the **board** connector pins to contact the chassis.

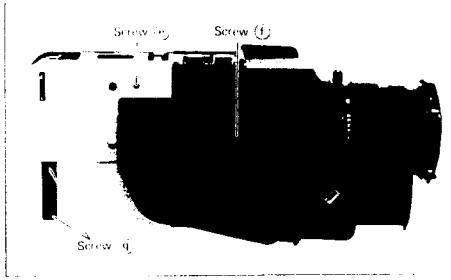


Fig. 4-4 Removing the camera body cover (4)

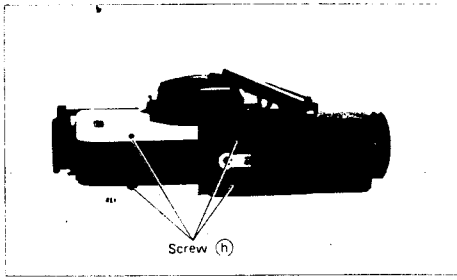


Fig. 4-5 Removing the camera body cover (5)

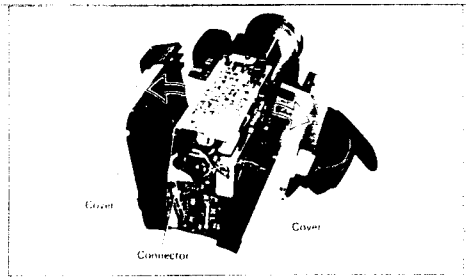


Fig. 4-6 Removing the camera body cover (6)

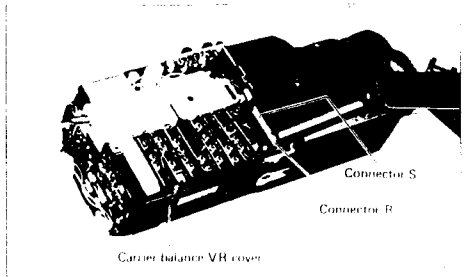


Fig. 4-7 Removing the camera body cover (7)

■ REMOVING THE SWITCHING REGULATOR

1. The switching regulator can be removed by first removing **screw** (a) and the **connector** shown in **Fig. 5.**

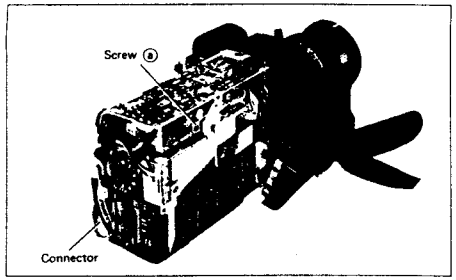


Fig. 5 Removing the switching regulator

■ REMOVING THE MOTHER BOARD

1. The mother board can be removed by removing **screws** (a) and (b) shown in **Fig. 6.** If necessary remove connectors, etc.

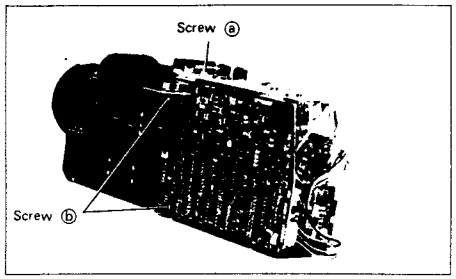


Fig. 6 Removing the mother BOARD

■ REMOVING THE PREAMPLIFIER BOARD

1. Remove the **connector** as shown in **Fig. 7-1** and pull out the **two screws** (a).
2. Remove the one piece of solder and disassemble the shield case. **(Fig. 7-1)**
3. Remove the solder at the two points shown in **Fig. 7-2** and pull out the **preamplifier BOARD.**

NOTE: Be careful that you don't damage the target pin after removing the preamplifier.

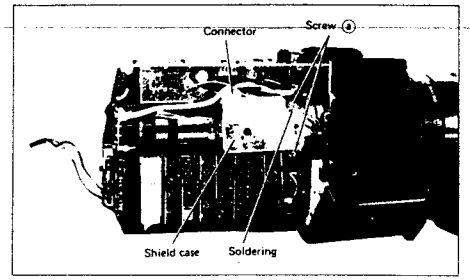


Fig. 7-1 Removing the preamplifier BOARD (1)

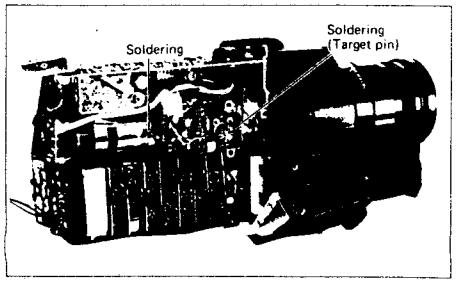


Fig. 7-2 Removing the preamplifier BOARD (2)

■ REPLACING THE PICKUP TUBE

* If only replacing the pickup tube, do not remove the preamplifier.

1. Remove the **two screws** (a) shown in **Fig. 8-1.**
2. As shown in **Fig. 8-2,** remove **screw** (b) and pull the DEF board in the direction of the arrow (A). After removing the tube socket, gently pull the **DEF yoke** in the direction of the **arrow** (B).

NOTE: Avoid pulling forcefully on the preamplifier and hold the **DEF yoke section.**

3. Remove the **LPF & BIAS light** shown in **Fig. 8-2.**
4. Remove the **DEF yoke** by removing the **connector** and soldered points shown in **Fig. 8-3.**
5. Loosen the **screw** (C) shown in **Fig. 8-4,** press the **lock** shown in **Fig. 8-5** in the direction of the arrow and pull out the **pickup tube** in the direction of the arrow shown in **Fig. 8-4.**

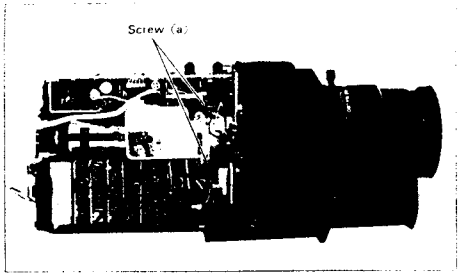


Fig. 8-1 Removing the pickup tube (1)

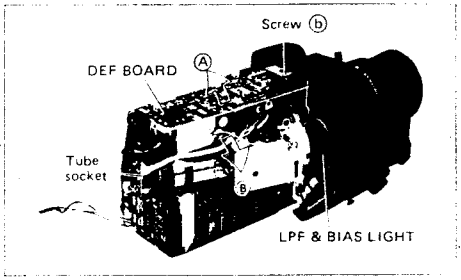


Fig. 8-2 Removing the pickup tube (2)

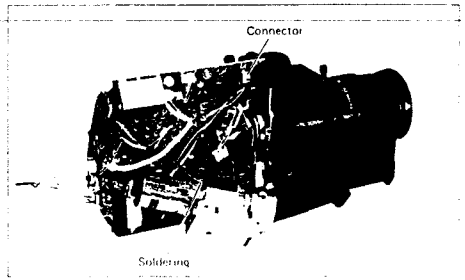


Fig. 8-3 Removing the pickup tube (3)

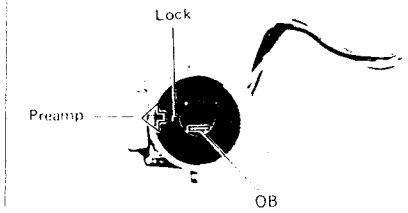


Fig. 8-5 Removing the pickup tube (5)

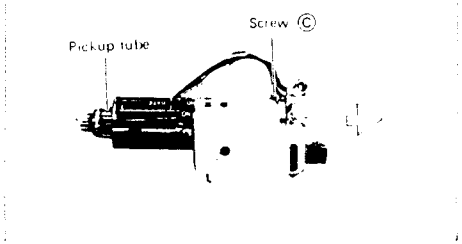


Fig. 8-4 Removing the pickup tube (4)

■ DISASSEMBLY & REPLACEMENT OF BIAS LIGHT & OPTICAL LOW-PASS FILTER

1. Remove the **connector** shown in **Fig. 9-1.**
2. **Fig. 9-2** shows disassembly method.

NOTE: When replacing the **BIAS light board** and **LPF**, be sure to confirm which sides are back and front and which are top and bottom.

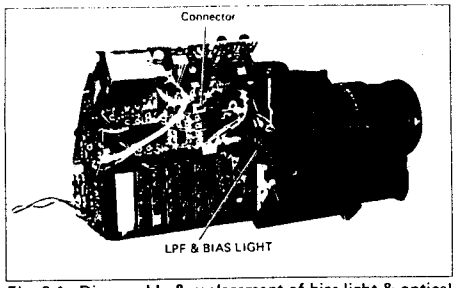


Fig. 9-1 Disassembly & replacement of bias light & optical low-pass filter

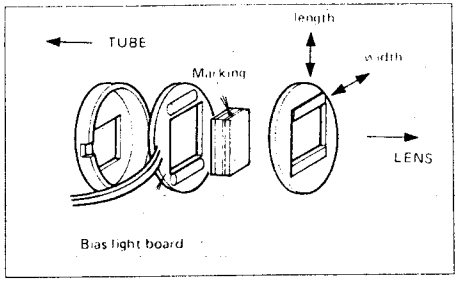


Fig. 9-2 Disassembly & replacement of bias light & optical low-pass filter

■ REMOVING THE GRIP BELT

1. Remove the **two screws** ⓐ shown in **Fig. 10.**

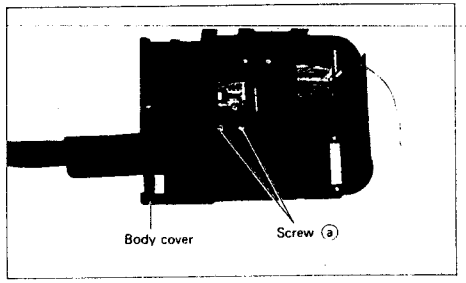


Fig. 10 Removing the grip belt

■ REMOVING THE VTR SWITCH

1. Remove the **two screws** ⓐ shown in **Fig. 11-1** and detach the **VCR(VTR) SW board.**
2. As shown in **Fig. 11-2**, remove the **knob stoppers** in the direction of the **arrow**, then remove the **VCR (VTR) START/STOP** knob.

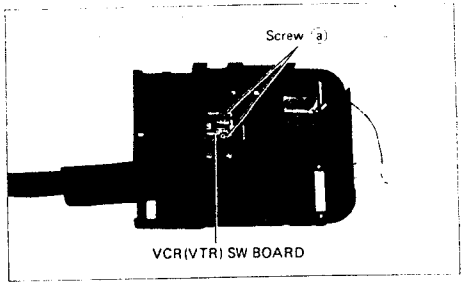


Fig. 11-1 Removing the VCR (VTR) switch (1)

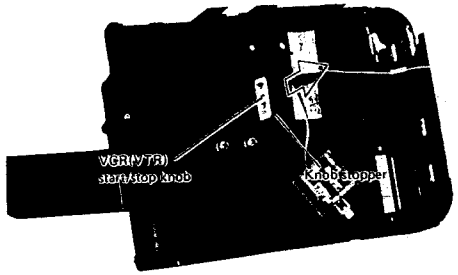


Fig. 11-2 Removing the VCR (VTR) switch (2)

■ DISASSEMBLING THE ELECTRONIC VIEW-FINDER (EVF)

1. Remove the **E ring** shown in **Fig. 12-1**, pull out the **shaft** and detach the **EVF arm.**
2. While pressing the **button** Ⓐ shown in **Fig. 12-2**, pull the **EVF hood** in the direction of the **arrow.**

NOTE: FOCUS, BRIGHT, V. HIGHT and H. HOLD can be adjusted while EVF hood is removed.

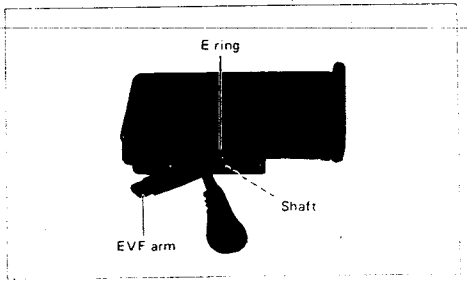


Fig. 12-1 Disassembling the EVF (1)

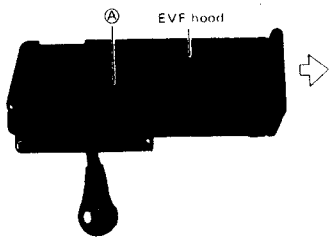


Fig. 12-2 Disassembling the EVF (2)

3. *To disassemble EVF hood, remove the eye cap in the* direction of the arrow as shown in Fig. 12-3.
4. Press the clip securing the lens in the direction of the arrow and remove lens, as shown in Fig. 12-4.
5. Pull the lock plate in the direction of the arrow shown in Fig. 12-5.

NOTE: When locking the EVF hood becomes impossible while shooting under special atmospheric conditions (high temperature/humidity), use the EVF by slightly bending the lock plate.

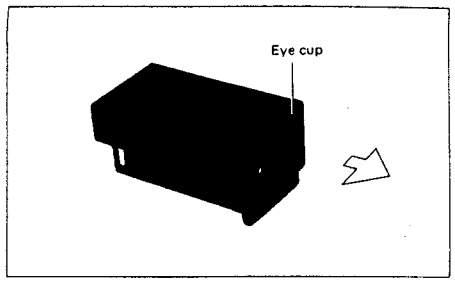


Fig. 12-3 Disassembling the EVF (3)

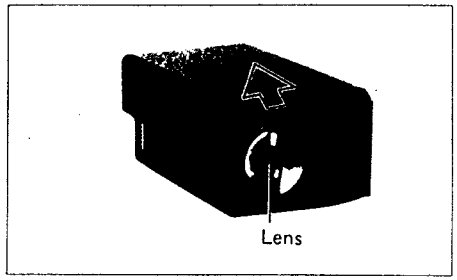


Fig. 12-4 Disassembling the EVF (4)

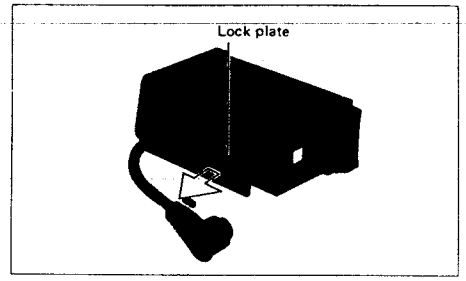


Fig. 12-5 Disassembling the EVF (5)

REMOVING THE EVF, BOARD AND CRT

1. Remove the **two screws** ⓐ shown in **Fig. 13-1.**
2. Remove the **EVF cover** by lifting in the direction of the arrow as shown in **Fig. 13-2.**
3. Removing the **CRT socket** and **connector** shown in **Fig. 13-3** will allow the circuit board to be removed.
4. Removing the **two** ⓑ **screws** shown in **Fig. 13-4** will allow disassembly of the **CRT** and **DY assembly.**

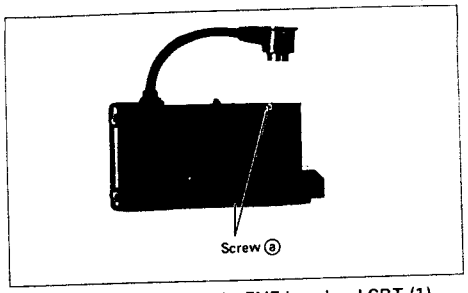


Fig. 13-1 Removing the EVF board and CRT (1)

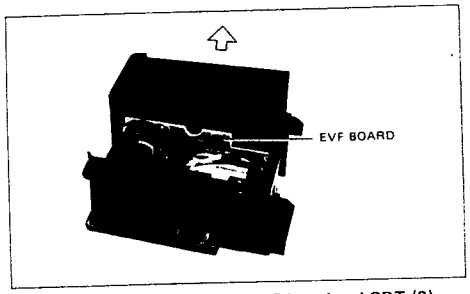


Fig. 13-2 Removing the EVF board and CRT (2)

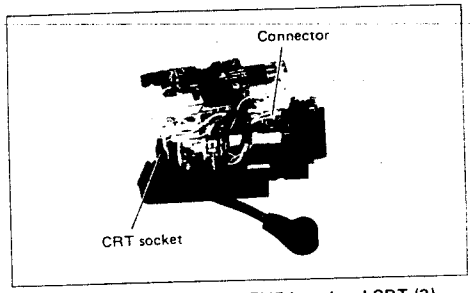


Fig. 13-3 Removing the EVF board and CRT (3)

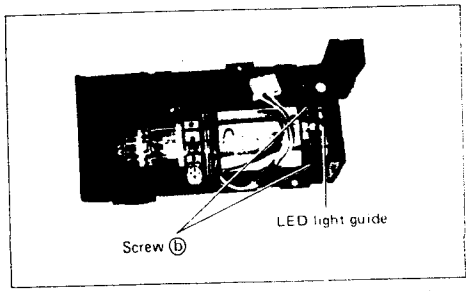


Fig. 13-4 Removing the EVF board and CRT (4)

GX-N7E
STANDARD CIRCUIT DIAGRAM
SCHEMA DE CIRCUIT STANDARD
STANDARDSCHALTUNGSDIAGRAMM

CONTENTS

1. NOTES ON USING CIRCUIT DIAGRAMS 2
2. CHANGE OF ADOPTED PC BOARD 5
3. PIN ARRANGEMENTS OF ICs, TRANSISTORS AND DIODES 7
4. WIRING DIAGRAM 9
5. BLOCK DIAGRAM OF EVF 11
6. BLOCK DIAGRAM OF LENS 12
7. BLOCK DIAGRAM OF MAIN CIRCUIT 13
8-1. CIRCUIT DIAGRAM OF MOTHER BOARD (CA-1571A/B) 15
8-2. BOARD DIAGRAM OF MOTHER BOARD (CA-1071A) 17
9-1. CIRCUIT DIAGRAM OF PRE-AMP (CA-2071A) 19
9-2. BOARD DIAGRAM OF PRE-AMP (CA-2071A) 19
10-1. CIRCUIT DIAGRAM OF AUDIO BOARD Ⓐ (CA-A001A/A003A) 20
10-2. BOARD DIAGRAM OF AUDIO BOARD Ⓐ (CA-A001A) 20
11-1. CIRCUIT DIAGRAM OF PRE-PROCESS BOARD Ⓑ (CA-B001A) 21
11-2. BOARD DIAGRAM OF PRE-PROCESS BOARD Ⓑ (CA-B001A) 21
12-1. CIRCUIT DIAGRAM OF CARRIER MATRIX BOARD Ⓒ (CA-D001A) 22
12-2. BOARD DIAGRAM OF CARRIER MATRIX BOARD Ⓒ (CA-C001A) 22
13-1. CIRCUIT DIAGRAM OF DETECTOR BOARD Ⓓ (CA-D001A) 23
13-2. BOARD DIAGRAM OF DETECTOR BOARD Ⓓ (CA-D001A) 23
14-1. CIRCUIT DIAGRAM OF BLACK SET/AUTO WHITE BOARD Ⓔ (CA-E001A/E004A) 24
14-2. BOARD DIAGRAM OF BLACK SET/AUTO WHITE BOARD Ⓔ (CA-E001A) 24
15-1. CIRCUIT DIAGRAM OF COLOR γ BOARD Ⓕ (CA-F001A) 25
15-2. BOARD DIAGRAM OF COLOR γ BOARD Ⓕ (CA-F001A) 25
16-1. CIRCUIT DIAGRAM OF CDP BOARD Ⓖ (CA-G501A) 26
16-2. BOARD DIAGRAM OF CDP BOARD Ⓖ (CA-G501A) 26
17-1. CIRCUIT DIAGRAM OF AGC BOARD Ⓗ (CA-H501A) 27
17-2. BOARD DIAGRAM OF AGC BOARD Ⓗ ((CA-H501A) 27
18-1. CIRCUIT DIAGRAM OF ENCODER BOARD Ⓙ (CA-J501A/J503A) 28
18-2. BOARD DIAGRAM OF ENCODER BOARD Ⓙ (CA-J501A) 28
19-1. CIRCUIT DIAGRAM OF SSG BOARD Ⓚ (CA-K501A) 29
19-2. BOARD DIAGRAM OF SSG BOARD Ⓚ (CA-K501A) 29
20-1. CIRCUIT DIAGRAM OF VTR TRIGGER, RUN & BATTERY ALARM BOARD Ⓛ (CA-L502A/L504A) 30
20-2. BOARD DIAGRAM OF VTR TRIGGER' RUN & BATTERY ALARM BOARD Ⓛ (CA-L502A) 30
21. CIRCUIT DIAGRAM OF SW. REGULATOR (CE40687) 31
22. BOARD DIAGRAM OF MIC BOARD (CA-M001A) 32
23. BOARD DIAGRAM OF TUBE SOCKET BOARD 32
24. BOARD DIAGRAM OF BIAS LIGHT BOARD (CA-8071A) 32
25-1. CIRCUIT DIAGRAM OF EVF (CA-6071A) 33
25-2. BOARD DIAGRAM OF EVF (CA-6071A) 34

SOMMAIRE

1. NOTES CONCERNANT L'UTILISATION DES SCHEMAS DE CIRCUITS 2
2. CHANGEMENT DE PLAQUETTES DE CI 5
3. DISPOSITION DES BROCHES DES CIs, TRANSISTORS ET DIODES 7
4. SCHEMA DE CABLAGE 9
5. SCHEMA DE PRINCIPE DU VISEUR ELECTRONIQUE 11
6. SCHEMA DE PRINCIPE DE L'OBJECTIF 12
7. SCHEMA DE PRINCIPE DU CIRCUIT PRINCIPAL 13
8-1. SCHEMA DE CIRCUIT DE LA PLAQUETTE MERE (CA-1571A/B) 15
8-2. SCHEMA DE PCI DE LA PLAQUETTE MERE (CA-1071A) 17
9-1. SCHEMA DE CIRCUIT DU PREAMPLIFICATEUR (CA-2071A) 19
9-2. SCHEMA DE PCI DU PREAMPLIFICATEUR (CA-2071A) 19
10-1. SCHEMA DE CIRCUIT DE LA PLAQUETTE AUDIO Ⓐ (CA-A001A/A003A) 20
10-2. SCHEMA DE PCI DE LA PLAQUETTE AUDIO Ⓐ (CA-A001A) 20
11-1. SCHEMA DE CIRCUIT DE LA PLAQUETTE DE PRETRAITEMENT Ⓑ (CA-B001A) 21
11-2. SCHEMA DE PCI DE LA PLAQUETTE DE PRETRAITEMENT Ⓑ (CA-B001A) 21
12-1. SCHEMA DE CIRCUIT DE LA PLAQUETTE DE MATRICE DE L'ONDE PORTEUSE Ⓒ (CA-C001A) 22
12-2. SCHEMA DE PCI DE LA PLAQUETTE DE MATRICE DE L'ONDE PORTEUSE Ⓒ (CA-C001A) 22
13-1. SCHEMA DE CIRCUIT DE LA PLAQUETTE DE DETECTEUR Ⓓ (CA-D001A) 23
13-2. SCHEMA DE PCI DE LA PLAQUETTE DE DETECTEUR Ⓓ (CA-D001A) 23
14-1. SCHEMA DE CIRCUIT DE LA PCI REGLAGE DU NOIR/BLANC AUTOMATIQUE Ⓔ (CA-E001A/E004A) 24
14-2. SCHEMA DE PCI DE REGLAGE DU NOIR/BLANC AUTOMATIQUE Ⓔ (CA-E001A) 24
15-1. SCHEMA DE CIRCUIT DE PLAQUETTE DE COULEUR γ Ⓕ (CA-F001A) 25
15-2. SCHEMA DE PCI DE PLAQUETTE DE COULEUR γ Ⓕ (CA-F001A) 25
16-1. SCHEMA DE CIRCUIT DE LA PLAQUETTE CDP Ⓖ (CA-G501A) 26
16-2. SCHEMA DE PCI DE PLAQUETTE CDP Ⓖ (CA-G501A) 26
17-1. SCHEMA DE CIRCUIT DE PLAQUETTE CAG Ⓗ (CA-H501A) 27
17-2. SCHEMA DE PCI DE PLAQUETTE CAG Ⓗ (CA-H501A) 27
18-1. SCHEMA DE CIRCUIT DE PLAQUETTE DE CODEUR Ⓙ (CA-J501A/J503A) 28
18-2. SCHEMA DE PCI DE PLAQUETTE DE CODEUR Ⓙ (CA-J501A) 28
19-1. SCHEMA DE CIRCUIT DE PLAQUETTE SSG Ⓚ (CA-K501A) 29
19-2. SCHEMA DE PCI DE PLAQUETTE SSG Ⓚ (CA-K501A) 29
20-1. SCHEMA DE CIRCUIT DE PLAQUETTE DE DECLENCHEUR DE VTR, MARCHE & ALARME DES PILES Ⓛ (CA-L502A/L504A) 30
20-2. SCHEMA DE PCI DE DECLENCHEUR DE VTR, MARCHE & ALARME DES PILES Ⓛ (CA-L502A) 30
21. SCHEMA DE CIRCUIT DU REGULATEUR DE COMMANDES (CE40687) 31
22. SCHEMA DE PCI DE PLAQUETTE DE MICROPHONE (CA-M001A) 32
23. SCHEMA DE PCI DE PLAQUETTE DE PRISE DE TUBE 32
24. SCHEMA DE PCI DE PLAQUETTE DE LA LAMPE DE POLARISATION (CA-8071A) 32
25-1. SCHEMA DE CIRCUIT DU VISEUR ELECTRONIQUE (CA-6071A) 33
25-2. SCHEMA DE PCI DU VISEUR ELECTRONIQUE (CA-6071A) 34

INHALT

1. HINWEISE ZUR VERWENDUNG DER SCHALTPLÄNE 2
2. ÄNDERUNG DER VERWENDETEN LEITERPLATTEN 5
3. STIFTANORDNUNG DER ICs, TRANSISTOREN UND DIODEN 7
4. VERDRAHTUNGSDIAGRAMM 9
5. BLOCKDIAGRAMM DES ELEKTRONISCHEN SUCHERS 11
6. BLOCKDIAGRAMM DES OBJEKTIVS 12
7. BLOCKDIAGRAMM DER HAUPTSCHALTUNG 13
8-1. SCHALTPLAN DER HAUPTLEITERPLATTE (CA-1571A/B) 15
8-2. SCHALTBILD DER HAUTPLEITERPLATTE (CA-1071A) 17
9-1. SCHALTPLAN DES VORVERSTÄRKERS (CA-2071A) 19
9-2. SCHALTBILD DES VORVERSTÄRKERS (CA-2071A) 19
10-1. SCHALTPLAN DER AUDIO-LEITERPLATTE Ⓐ (CA-A001A/A003A) 20
10-2. SCHALTBILD DER AUDIO-LEITERPLATTE Ⓐ (CA-A001A) 20
11-1. SCHALTPLAN DER VORVERARB.-LEITERPLATTE Ⓑ (CA-B001A) 21
11-2. SCHALTBILD DER VORVERARB.-LEITERPLATTE Ⓑ (CA-B001A) 21
12-1. SCHALTPLAN DER TRÄGERMATRIX-LEITERPLATTE Ⓒ (CA-C001A) 22
12-2. SCHALTBILD DER TRÄGERMATRIX-LEITERPLATTE Ⓒ (CA-C001A) 22
13-1. SCHALTPLAN DER DETEKTOR-LEITERPLATTE Ⓓ (CA-D001A) 23
13-2. SCHALTBILD DER DETEKTOR-LEITERPLATTE Ⓓ (CA-D001A) 23
14-1. SCHALTPLAN DER SCHWARZ/WEISSABGLEICH-LEITERPLATTE Ⓔ (CA-E001A/E004A) 24
14-2. SCHALTBILD DER SCHWARZ/WEISSABGLEICH-LEITERPLATTE Ⓔ (CA-E001A) 24
15-1. SCHALTPLAN DER FARBGAMMA-LEITERPLATTE Ⓕ (CA-F001A) 25
15-2. SCHALTBILD DER FARBGAMMA-LEITERPLATTE Ⓕ (CA-F001A) 25
16-1. SCHALTPLAN DER CDP-LEITERPLATTE Ⓖ (CA-G501A) 26
16-2. SCHALTBILD DER CDP-LEITERPLATTE Ⓖ (CA-G501A) 26
17-1. SCHALTPLAN DER AVR-LEITERPLATTE Ⓗ (CA-H501A) 27
17-2. SCHALTBILD DER AVR-LEITERPLATTE Ⓗ (CA-H501A) 27
18-1. SCHALTPLAN DER FARBCODER-LEITERPLATTE Ⓙ (CA-J501A/J503A) 28
18-2. SCHALTBILD DER FARBCODER-LEITERPLATTE Ⓙ (CA-J501A) 28
19-1. SCHALTPLAN DER TAKTGEBER-LEITERPLATTE Ⓚ (CA-K501A) 29
19-2. SCHALTBILD DER TAKTGEBER-LEITERPLATTE Ⓚ (CA-K501A) 29
20-1. SCHALTPLAN DES VIDEORECORDERTRIGGER, KAMERALAUF & BATTERIEALARM-LEITERPLATTE Ⓛ (CA-L502A/L504A) 30
20-2. SCHALTBILD DES VIDEORECORDERTRIGGER, KAMERALAUF & BATTERIEALARM-LEITERPLATTE Ⓛ (CA-L502A) 30
21. SCHALTPLAN DES SW. REGLERS (CE40687) 31
22. SCHALTBILD DER MIKROFON-LEITERPLATTE (CA-M001A) 32
23. SCHALTBILD DER RÖHRENFASSUNG-LEITERPLATTE 32
24. SCHALTBILD DER VORSPANNUNGSLICHT-LEITERPLATTE (CA-8071A) 32
25-1. SCHALTPLAN DES ELEKTRONISCHEN SUCHERS (CA-6071A) 33
25-2. SCHALTBILD DES ELEKTRONISCHEN SUCHERS (CA-6071A) 34

GX-N7E (No. 5550)
July 1984

1 NOTES ON USING CIRCUIT DIAGRAMS

1. Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.
2. Replacing the shaded (▭) parts in the circuit diagram, be sure to use parts specified for safety purposes.
3. The voltage values and waveforms have been measured under the following conditions:
   - Illumination : Illumination condition during adjustment
   - Object : JVC Gray scale pattern (γ = 2.2, 11 steps)
   - Iris : Iris switch ~ Auto iris (AGC ON) " A ", iris compensation switch ~ "0" position
   - VTR mode indication : Pause mode
   - White balance : Standard setting
   - Voltagevalues : All DC voltage values. Measured by a high-precision tester or a digital voltmeter
   - Waveforms : Oscilloscope sweep time H: 10 μS/div. V: 5 mS/div. Others: Measured time is shown Usually a probe of 10 : 1 is used. (Indicated when a 1 : 1 probe is used.)

   * **Note:** See also the information given in the circuit diagram.
4. Indications on the circuit diagram.
   - Addresses
     Indications of A-5, C-3, etc. show the addresses of chip parts on the pattern side of the PC board.
   - Resistors
     10K: Resistance value
     non-unit: [Ω]
     K: [KΩ]
     M: [MΩ]
     1/2W: Rated allowable power [W]
     non-indication: 1/4 chip resistor or carbon resistor
   - Electrolytic Capacitors
     47/16: capacitance value [μF] /working voltage [V]
     NP/BP: non-polar/bipolar electrolytic capacitor
     T or TAN.: Tantalum capacitor
   - Capacitors
     0.033: capacitance value
     1 or higher: [pF], less than 1 : [μF]
     100V: working voltage
     All DC voltage except for AC indicated.
     non-indication: 50V DC
     MY: Mylar capacitor
     PP: Polypropylene capacitor
     non-indication: Ceramic capacitor
   - Coils
     39: inductance value
     non-unit: [μH]
   - Connections
     ▭ : connector
     △or ⌐▸: chip connector
     ○ : soldering

   * Refer to the parts list in the Service manual about the detailed indications of parts.
5. The non-indicated chip transistor and chip diode on the Circuit Diagrams are as follows.
   - PNP type : 2SB709 (Q, R)
   - NPN type : 2SC1778 (C, D)
   - Diode : MA151WA

Interchangeable parts	Supplied parts
2SB709, 709(P,R), 709(Q,R)	2SB709 (Q,R)
2SC2778, 2778 (B,C), 2778(C.D)	2SC2778 (C,D)
2SD601, 601 (Q,R)	2SD601 (Q,R)
2SD601A, 601A (Q,R)	2SD601A (Q,R)

6. It is possible that the wiring diagram is inconsistent with the actual connection because of certain design improvements, etc. The diagram, therefore, should be used only for reference.

1 NOTES CONCERNANT L'UTILISATION DES SCHEMAS DE CIRCUITS

1. Etant donné que ce schéma de circuit est un schéma standard, le circuit et ses constantes peuvent être sujets à des changements à des fins d'amélioration sans aucun avis.
2. En remplaçant les parties ombrées (▭) du schéma de circuit, s'assurer d'utiliser des pièces spécifiques à des fins de sécurité.
3. Les valeurs de tension et les formes d'ondes ont été mesurées en tenant compte des conditions suivantes:
   - Eclairage : Conditions d'éclairage durant le réglage.
   - Sujet : Mire d'échelle des gris JVC (γ = 2,2, 11 échelons)
   - Diaphragme : Commutateur de diaphragme ~ Diaphragme automatique (CAG ON) Contacteur de "compensation de diaphragme " A " ~ Position "0".
   - Indication du mode VTR : Mode de Pause
   - Balance du Blanc : Réglage standard
   - Valeurs de tension : Toutes sont des valeurs de tension CC, mesurées par un appareil d'essai de haute précision ou par un voltmètre numérique.
   - Formes d'ondes : Temps de balayage de l'oscilloscope H: 10 μS/div. V: 5 mS/div. Autres: Le temps mesuré est indiqué. Généralement avec une sonde de 10 : 1. (L'utilisation d'une sonde de 1 : 1 est indiquée.)

   * **Note:** Se reporter également à l'information fournie dans le schéma de circuit.
4. Indications sur le schéma du circuit
   - Addresses
     Les indications A-5, C-3, etc, indiquent les adresses des pièces ultraminces sur la partie réservée au diagramme de la PCI.
   - Résistances
     10K: Valeur des résistances
     Hors unité: [Ω]
     K: [KM]
     M: [MΩ]
     1/2W: Puissance nominale permise (W)
     sans indication: Résistance ultramince ou résistance au carbone 1/4W
   - Condensateurs électrolytiques
     47/16: Valeur de capacité [μF] /tension opérationnelle [V]
     NP/BP: Condensateur électrolytique bipolaire/sans pôles
     T or TAN.: Condensateur au tantale
   - Condensateurs
     0,033: Valeur de capacité
     1 or supérieure: [pF], inférieure à 1 : [μF]
     100V: Tension opérationnelle
     Toutes sont des tensions CC à l'exception de l'indication AC.
     sans indication: 50V CC
     MY: Condensateur mylar
     PP: Condensateur au polypropilène
     sans indication: Condensateur de céramique
   - Bobines
     39: Valeur d'induction
     hors unité: [μH]
   - Connexions
     ▭ : connecteur
     △ou ⌐▸: connecteur ultramince
     ○ : soudure

   * Se reporter à la liste des pièces du Manuel de service en ce qui concerne les indications détaillées des pièces.
5. Le transistor et la diode ultraminces qui ne portent pas d'indications dans les schémas de circuits sont comme suit.
   - Type PNP : 2SB709 (Q, R)
   - Type NPN : 2SC2778 (C, D)
   - Diode : MA151W1

Pièces interchangeables	Supplied parts
2SB709, 709 (P-R), 709 (Q,R)	2SB709 (Q,R)
2SC2778, 2778 (B, C), 2778 (C.D)	2SC2778 (C,D)
2SD601, 601 (Q,R)	2SD601 (Q,R)
2SD601A, 601A (Q,R)	2SD601A(Q,R)

6. Il est possible que le schéma de câblage ne soit pas conforme à la connexion réelle à cause de certaines améliorations de la conception, etc. Il ne faut donc se servir de ce schéma qu'en qualité de référence.

1 HINWEISE ZUR VERWENDUNG DER SCHALTPLÄNE

1. Da der Schaltplan ein Standardplan ist, können die Schaltung und die Schaltkreiskonstanten ohne Ankündigung für Verbesserungen geändert werden.
2. Wenn Teile ausgewechselt werden, die im Schaltplan schattiert sind (▭), müssen Teile verwendet werden, die für Sicherheitszwecke spezifiziert sind.
3. Die Spannungswerte und Wellenformen wurden unter den folgenden Bedingungen gemessen:
   - Beleuchtung : Beleuchtung während der Einstellung
   - Objekt : JVC-Grauskalamuster (γ = 2,2, 11 Stufen)
   - Blende : Blendenschalter ~Automatische Blende (AGC Ein) " A " Blendenkompensationsschalter ~"0" Position
   - Videorecorder-Betriebsart-Anzeige : Pause-Betriebsart
   - Weißbalance : Standard-Einstellung
   - Spannungswerte : Alles Gleichstrom-Spannungswerte. Gemessen mit einem hochpräzisen Prüfgerät oder Digital-Voltmeter.
   - Wellenformen : Oszilloskop-Ablenkzeit H: 10 μS/div. V: 5 mS/div. Andere: Gemessene Zeit ist angegeben. Gewöhnlich wird ein Fühler von 10 : 1 verwendet. (Angegeben, wenn ein 1 : 1 Fühler verwendet wird.)

   * **Hinweis:** Siehe auch die Informationen im Schaltplan.
4. Angaben im Schaltplan.
   - Adressen
     Angaben wie A-5, C-3 usw. bezeichnen die Adressen der Chipteile an der Musterseite der Leiterplatte.
   - Widerstände
     10K: Widerstandswert
     ohne Einheit: [Ω]
     K: [KΩ]
     M: [MΩ]
     1/2W: zulässige Nenn-Leistung [W]
     ohne Angabe: 1/4W Chipwiderstand oder Kohlewiderstand
   - Elektrolytkondensatoren
     47/16: Kapazitätwert [μF] /Arbeitsspannung [V]
     NP/BP: nichtpolarer/bipolarer Elektrolytkondensator
     T order TAN.: Tantalumkondensator
   - Kondensatoren
     0,033: Kapazitätswert
     1 order höher: [pF], weniger als 1 : [μF]
     100V: Arbeitsspannung
     Alles Gleichspannungen außer wenn Wechselspannungen angegeben.
     Ohne Angabe: 50V Gleichspannung
     MY: Mylarkondensator
     PP: Polypropylenkondensator
     ohne Angabe: Keramikkondensator
   - Spulen
     39: Induktanzwert
     ohne Einheit: [μH]
   - Anschlüsse
     ▭ : Stecker
     △oder ⌐▸ : Chipstecker
     ○ : gelötet

   * Für die detaillierte Kennzeichnung der Teile siehe die Teile-Liste im Wartungs-Handbuch.
5. Die Chiptransistoren und Chipdioden im Schaltplan ohne Angabe sind wie folgt:
   - PNP : 2SB709 (Q, R)
   - NPN : 2SC2778 (C, D)
   - Diode : MA151WA

Auswechselbare Teile	Gelieferte Teile
2SB709, 709 (P-R), 709 (Q, R)	2SB709 (Q, R)
2SC2778, 2778 (B,C), 2778 (C, D)	2SC2778 (C, D)
2SD601, 601 (Q, R)	2SD601 (Q, R)
2SD601A, 601A(Q, R)	2SD601A (Q, R)

6. Es ist möglich, daß das Verdrahtungsdiagramm wegen Konstruktionsverbesserungen mit den tatsächlichen Anschlüssen nicht konsistent ist. Daher sollte das Diagramm nur als Referenz verwendet werden.

2 CHANGE OF ADOPTED PC BOARD
CHANGEMENT DE PLAQUETTES DE CI
ÄNDERUNG DER VERWENDETEN LEITERPLATTEN

1. During the course of production, some of the adopted PC boards will be changed as follows. As a result of this change, the No. of the mother board—including the module board—changes from **CA-1571A** to **CA-1571B**. Exercise care when servicing, because the new PC boards cannot be interchanged.

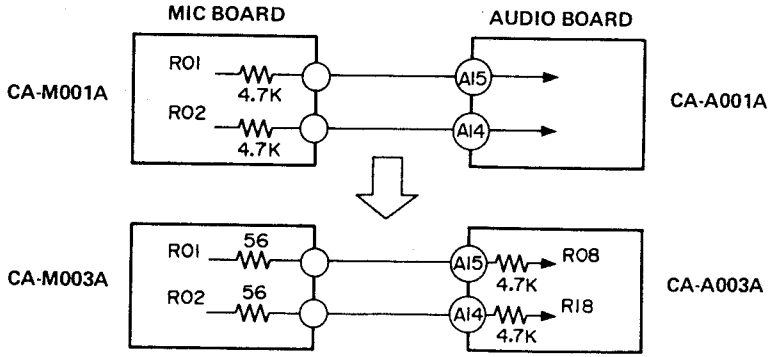
Au cours de la production, certaines plaquettes de CI seront changées de la manière suivante. Comme conséquence des changements, le No. de la plaquette mère, y compris la plaquette module, changera de **CA-1571A** à **CA-1571B**. Il est donc recommandé de bien faire attention au cours du service, car les plaquettes de CI nouvelles ne sont pas interchangeables.

Im Zuge der Produktion tritt folgende Änderung bei den verwendeten Leiterplatten ein. Aus diesem Ground ändert sich die Hauptleiterplatten-Nr. sowie der Modulleiterplatte von **CA-1571A** auf **CA-1571B**. Diese Änderung ist bei Servicearbeiten zu beachten, denn die neuen und alten Leiterplatten sind nicht untereinander austauschbar.

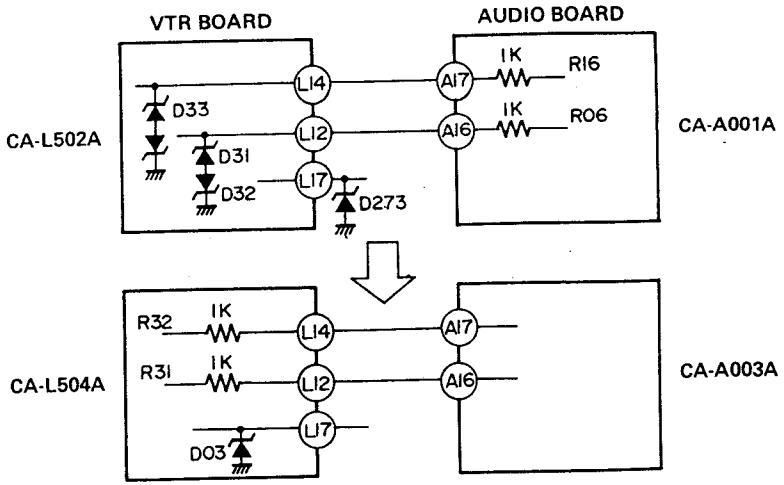
Board name Désignation de la plaquette Leiterplattenbezeichnung	Previous Précédente Früher	Present Actuelie Jetzt	Interchangeability Interchangeable Austauschbarkeit
MOTHER BOARD	CA-1571A	CA-1571B	○
AUDIO	CA-A001A	CA-A003A	×
BLACK SET	CA-E001A	CA-E004A	×
ENCODER	CA-J501A	CA-J503A	×
VTR TRIGGER	CA-L502A	CA-L504A	×
MIC	CA-M001A	CA-M003A	×

2. Outline of changes/Données concernant les changements/Umfang der Änderung

A.



B.



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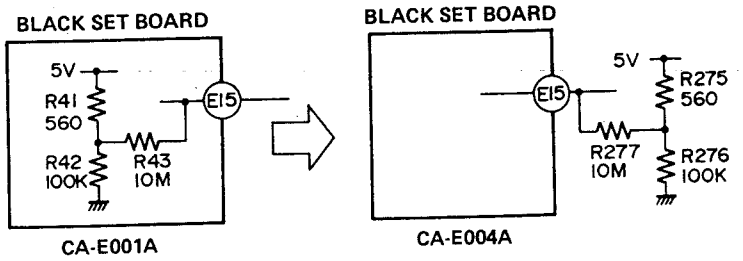
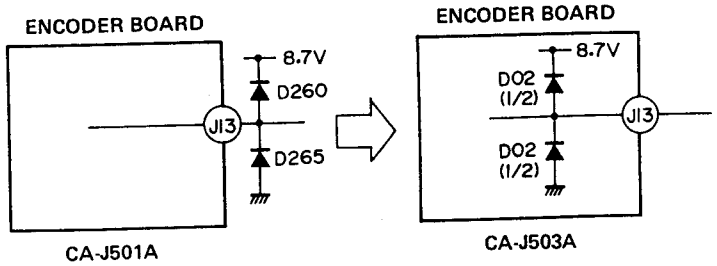
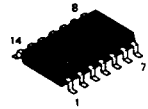


D.

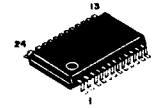


3 PIN ARRANGEMENTS OF ICs, TRANSISTORS AND DIODES
DISPOSITION DES BROCHES DES CIs, TRANSISTORS ET DIODES
STIFTANORDNUNGEN DER ICs, TRANSISTOREN UND DIODEN

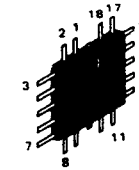
MN8029S (8 pin)
NJM082M (8 pin)
μPC4558G (8 pin)



μPC4741G(14 pin)
μPD4013BG (14 pin)
M51545P (16 pin)

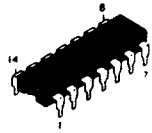


BA7020F (22 pin)
M51261P (20 pin)
M51262P (22 pin)
M51263P (24 pin)
M51264P (28 pin)



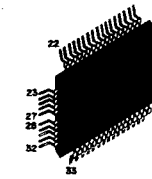
HA11720MP (18 pin
HA11748B (28 pin

N5232L (8 pin)

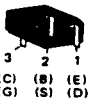


SN76670 (N) (14 pin)

NJM3413D (8 pin)



HD61907 (54 pin)



CHIP TRANSISTOR
2SA1022(QR)
2SA1034(R-T)
2SB709(QR)
2SB2709(P-R)
2SC2405(R-T)
2SC2778(C,D)
2SD601(QR)
2SD601A(QR)
2SD1030(RS)
CHIP FET
2SK198(Q)

2SA564(R)
2SA564A(Q)
2SA683
2SA844(C)
2SA893A
2SA921(R-T)
2SC458
2SC829(C)
2SC1213
2SC1685(R)
2SC1890A(E,F)
2SD889(QR)
2SD974

2SK218(P)

2SA673A
2SB605(L)
2SC454(C)
2SD571(L)

2SA798
2SC2259

2SD781
2SD975

2SB778T
2SB788(T)
2SC2647(C)
2SD638
2SD958

CHIP DIODE

MA151K
MA152K
MA3047

MA151WK
MA152WK
MA157

MA151A
MA152A

MA151WA
MA152WA

CHIP ZENER DIODE

MA3062
MA3075
MA3051

VARIABLE CAPACITOR

KV-1236XY

DIODE

MA522R

DIODE

VD1121
VD1222

DIODE
1SS16
1SS99
1SS133-Y

DIODE
V05E
V06C
V09E
V09G

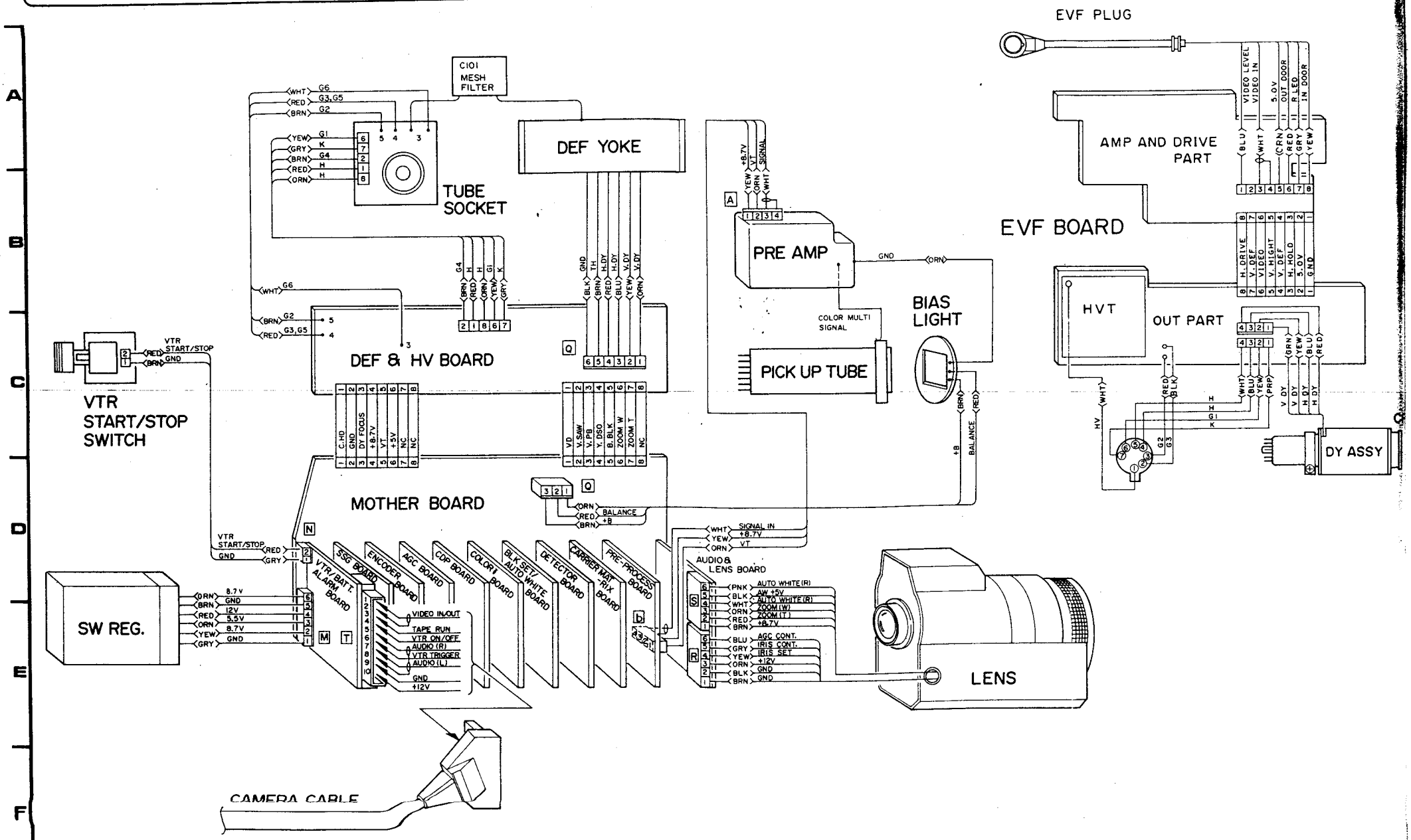
DIODE
W06A
1SS81
1S2473H
1S2076
HV70FB

ZENER DIODE
RD2.7E(B)
RD5.6E(B3)
RD6.2E(B2)
RD7.5E(B2)
RD10E(B)
RD12E(B)
RD15E(B)

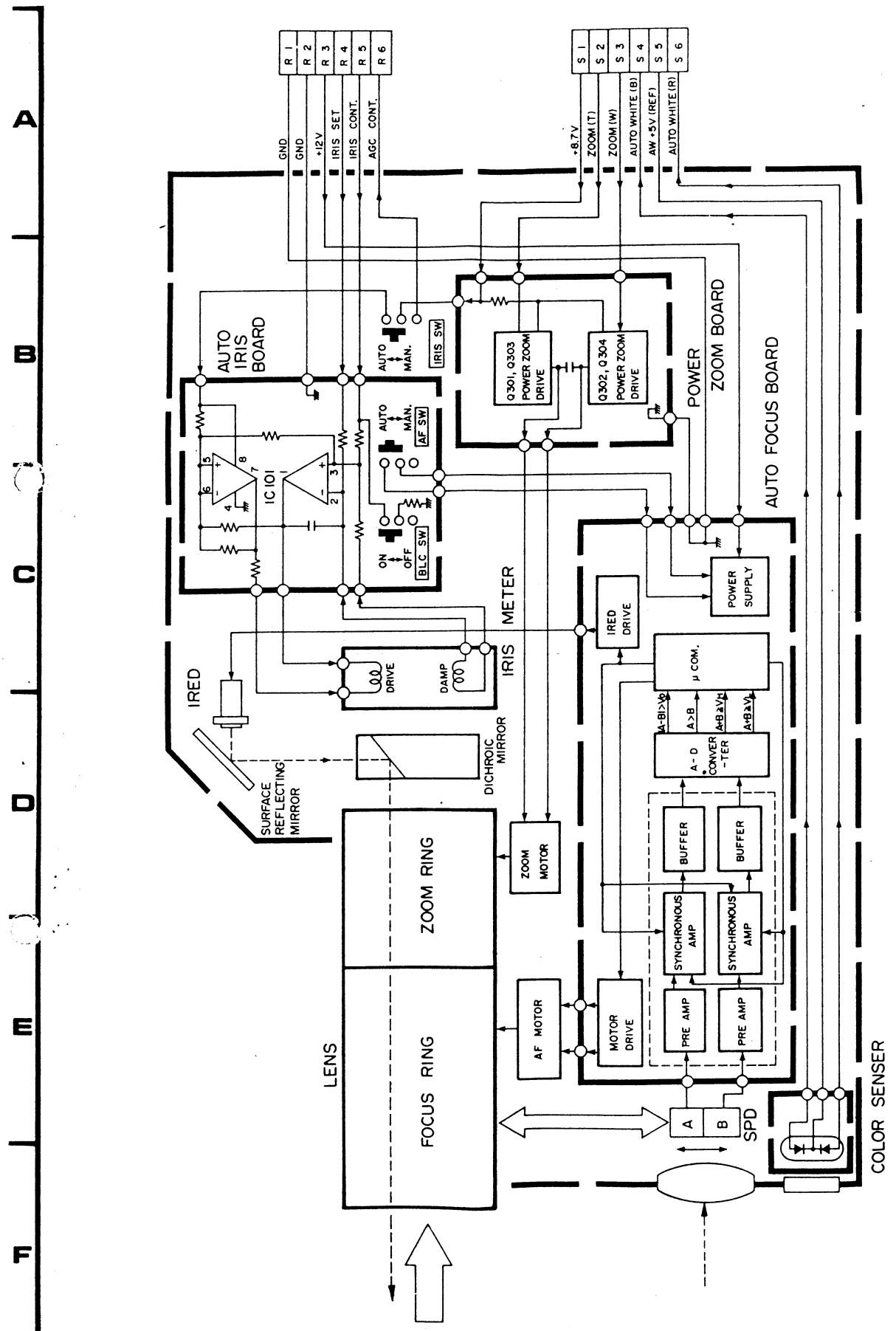
VARIABLE CAPACITOR DIODE

1SV68

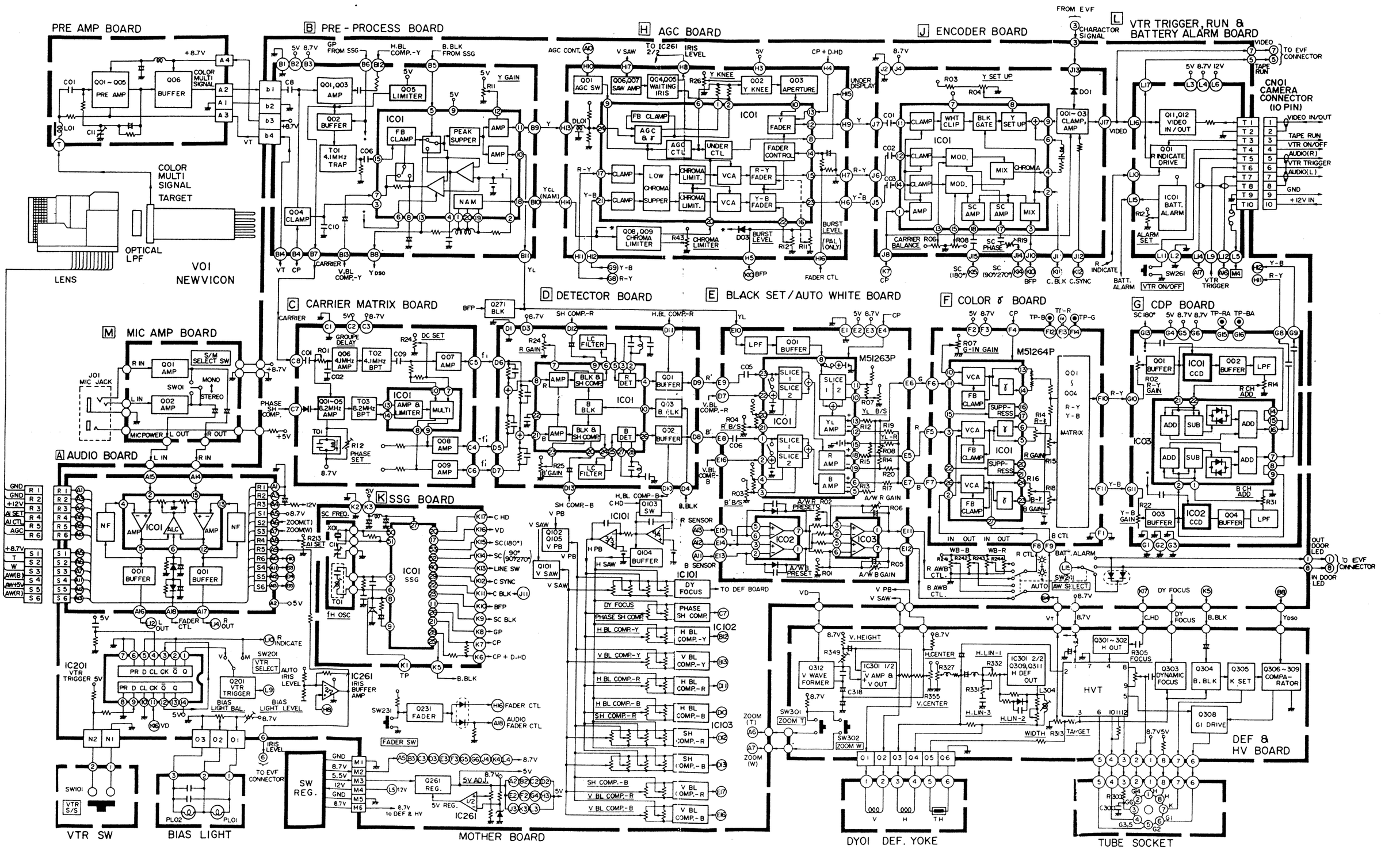
4 WIRING DIAGRAM/SCHEMA DE CABLAGE VERDRAHTUNGSDIAGRAMM



6 BLOCK DIAGRAM OF LENS
SCHEMA DE PRINCIPE DE L'OBJECTIF
BLOCKDIAGRAMM DES OBJEKTIVS

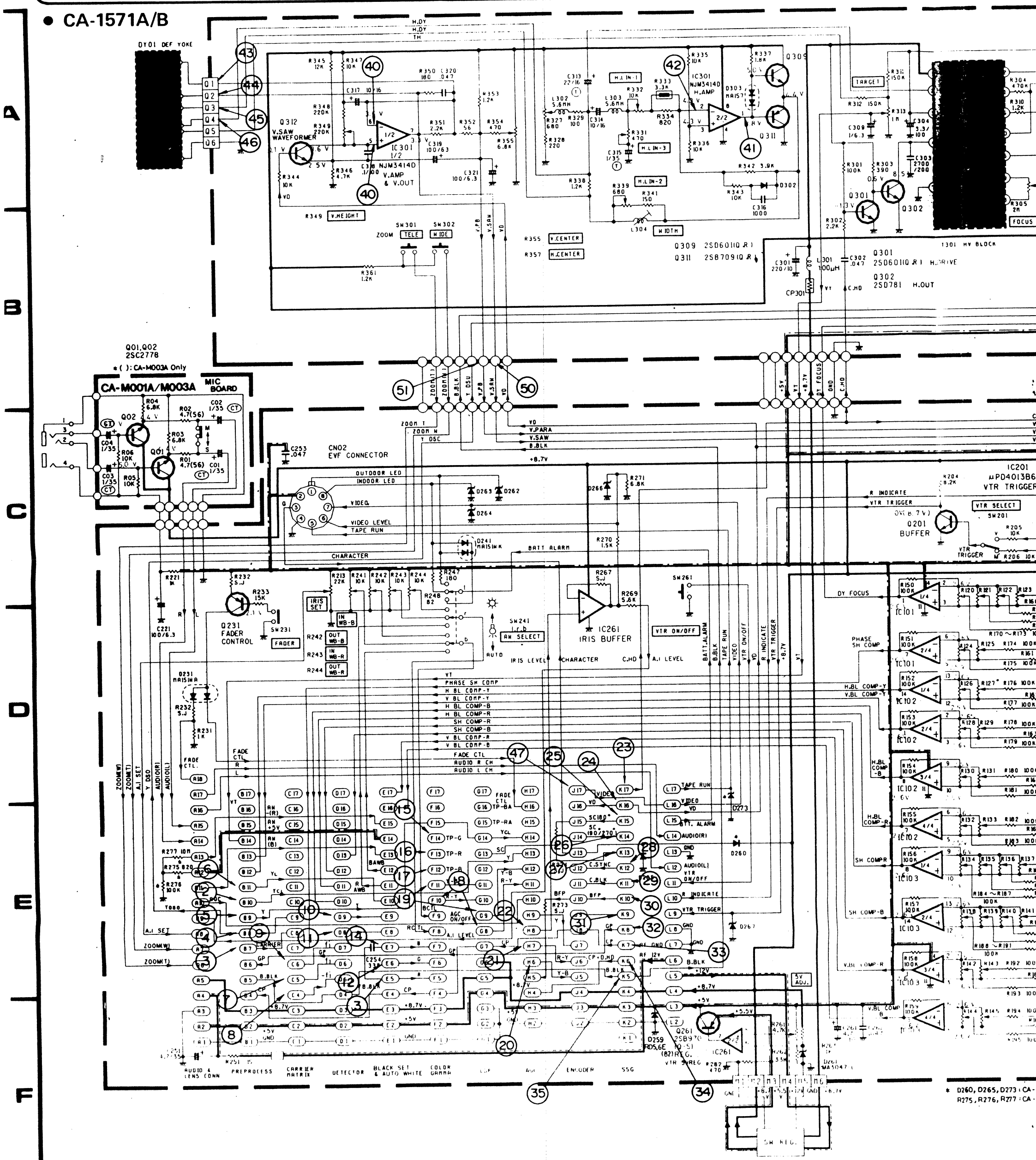


7 BLOCK DIAGRAM OF MAIN CIRCUIT
SCHEMA DE PRINCIPE DU CIRCUIT PRINCIPAL
BLOCKDIAGRAMM DER HAUPTSCHALTUNG



8-1 CIRCUIT DIAGRAM OF MOTHER BOARD/SCHEMA DE CIRCUIT DE LA PLAQUETTE MERE SCHALTPLAN DER HAUPTLEITERPLATTE

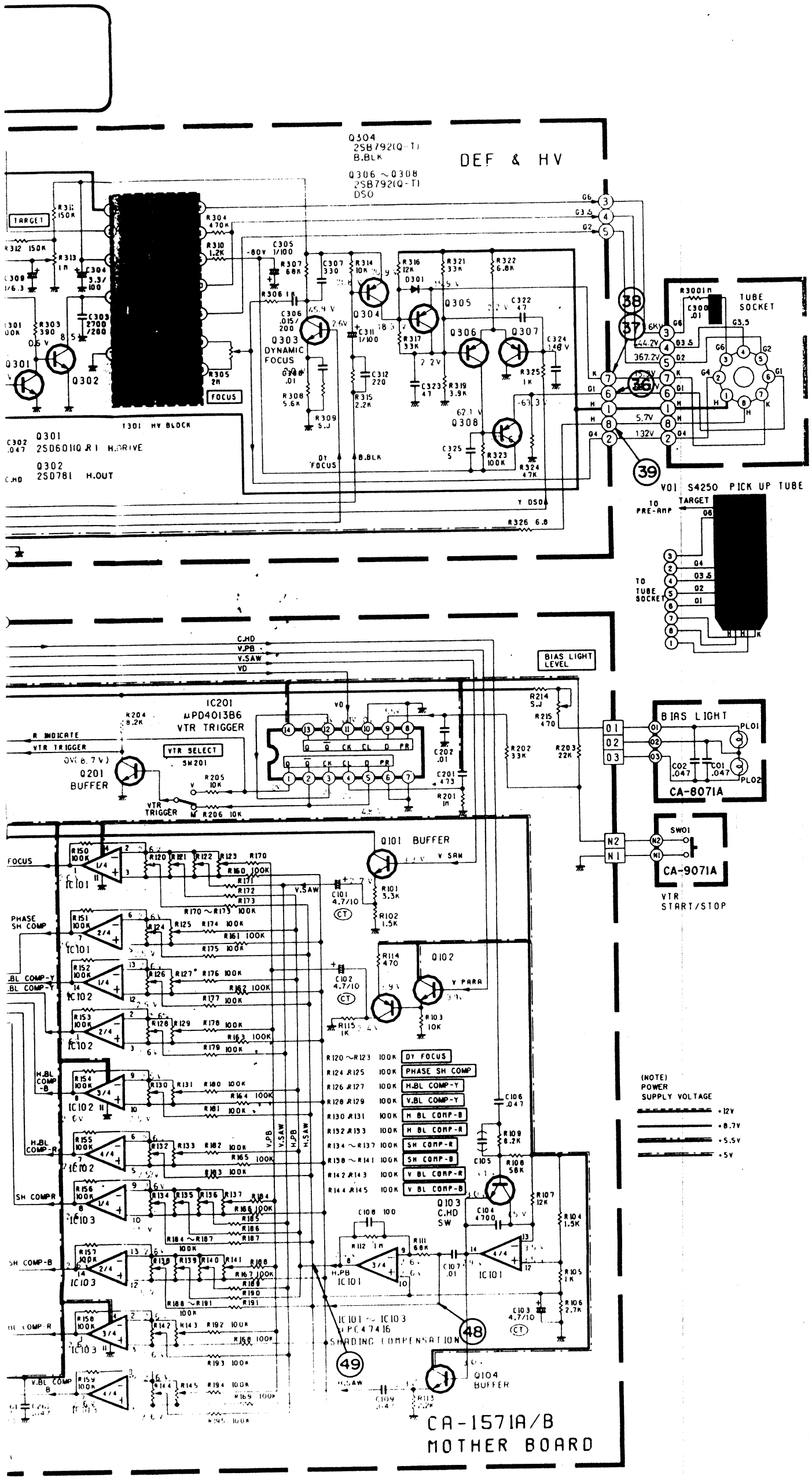
- CA-1571A/B



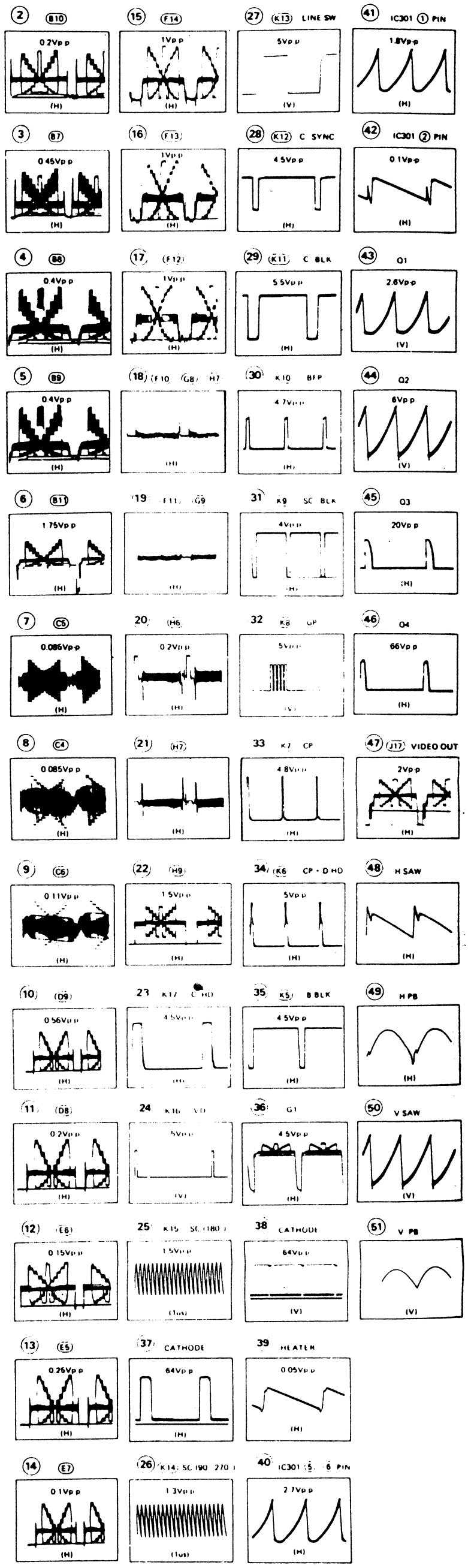
* D260, D265, D273 : CA-
R275, R276, R277 : CA-

15 (No. 5550)

16 (No. 5



* D260, D265, D273 : CA-1571A Only
R275, R276, R277 : CA-1571B Only

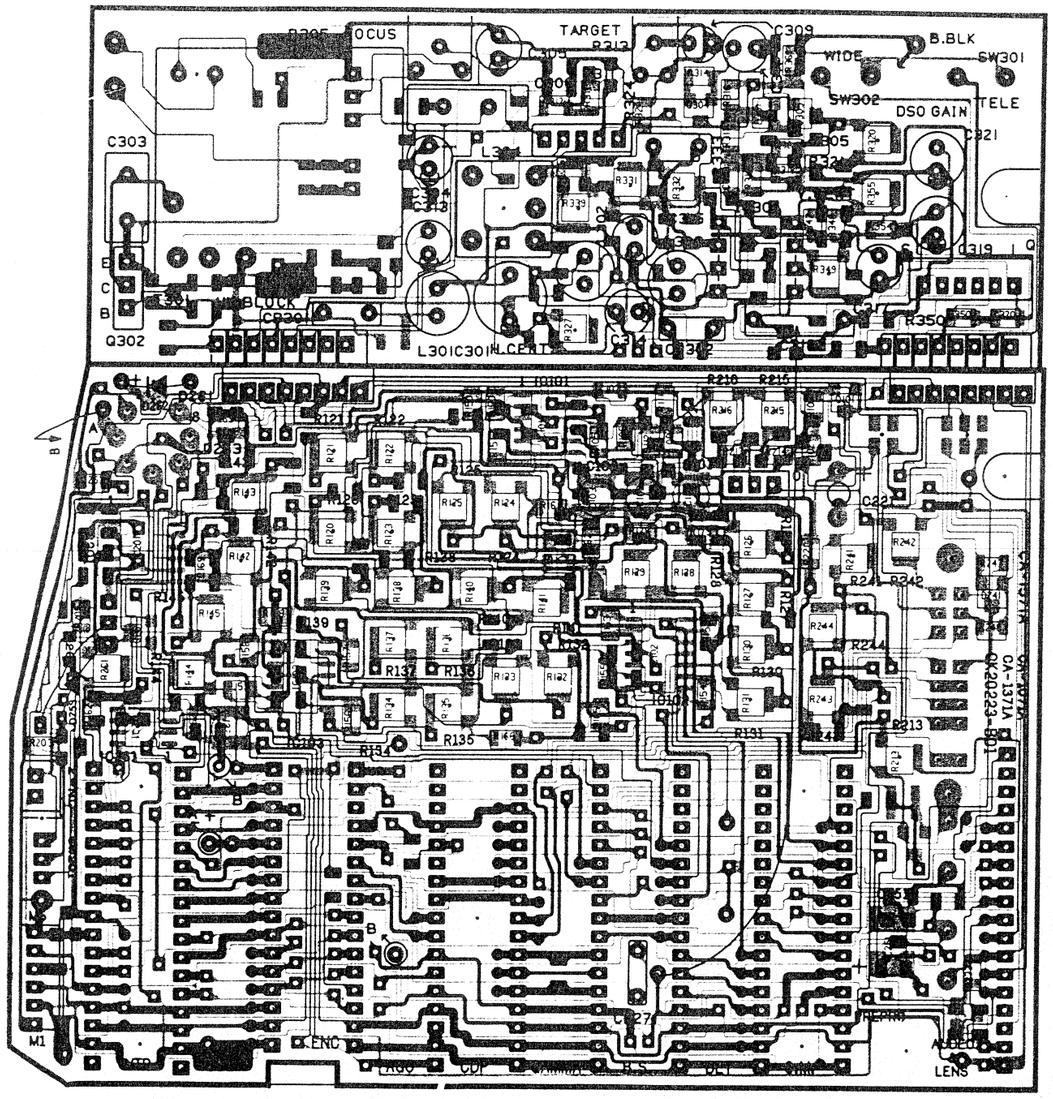

2 B10 0.2Vp-p (H)
15 F14 1Vp-p (H)
27 K13 LINE SW 5Vp-p (V)
41 IC301 ① PIN 1.8Vp-p (H)
3 B7 0.45Vp-p (H)
16 F13 1Vp-p (H)
28 K12 C SYNC 4.5Vp-p (H)
42 IC301 ② PIN 0.1Vp-p (H)
4 B6 0.4Vp-p (H)
17 F12 1Vp-p (H)
29 K11 C BLK 5.5Vp-p (H)
43 Q1 2.6Vp-p (V)
5 B9 0.4Vp-p (H)
18 F10 G8 H7
30 K10 BFP 4.7Vp-p (H)
44 Q2 6Vp-p (V)
6 B11 1.75Vp-p (H)
19 F11 G9
31 K9 SC BLK 4Vp-p (H)
45 Q3 20Vp-p (H)
7 C6 0.085Vp-p (H)
20 H6 0.2Vp-p (H)
32 K8 CP 5Vp-p (V)
46 Q4 66Vp-p (H)
8 C4 0.085Vp-p (H)
21 H7 (H)
33 K7 CP 4.8Vp-p (H)
47 J17 VIDEO OUT 2Vp-p (H)
9 C6 0.11Vp-p (H)
22 H9 1.5Vp-p (H)
34 K6 CP - D HD 5Vp-p (H)
48 H SAW (H)
10 D9 0.56Vp-p (H)
23 K17 C HD 4.5Vp-p (H)
35 K5 B BLK 4.5Vp-p (H)
49 H PB (H)
11 D8 0.2Vp-p (H)
24 K16 V D 5Vp-p (V)
36 G1 4.5Vp-p (H)
50 V SAW (V)
12 E6 0.15Vp-p (H)
25 K15 SC (180°) 1.5Vp-p (1μs)
38 CATHODE 64Vp-p (V)
51 V PB (V)
13 E5 0.25Vp-p (H)
37 CATHODE 64Vp-p (H)
39 HEATER 0.05Vp-p (H)
14 E7 0.1Vp-p (H)
26 K14 SC (90 270°) 1.3Vp-p (1μs)
40 IC301 ⑤ 6 PIN 2.7Vp-p (H)

8-2 BOARD DIAGRAM OF MOTHER BOARD
SCHEMA DE PCI DE LA PLAQUETTE MERE
SCHALTBILD DER HAUTPLEITERPLATTE

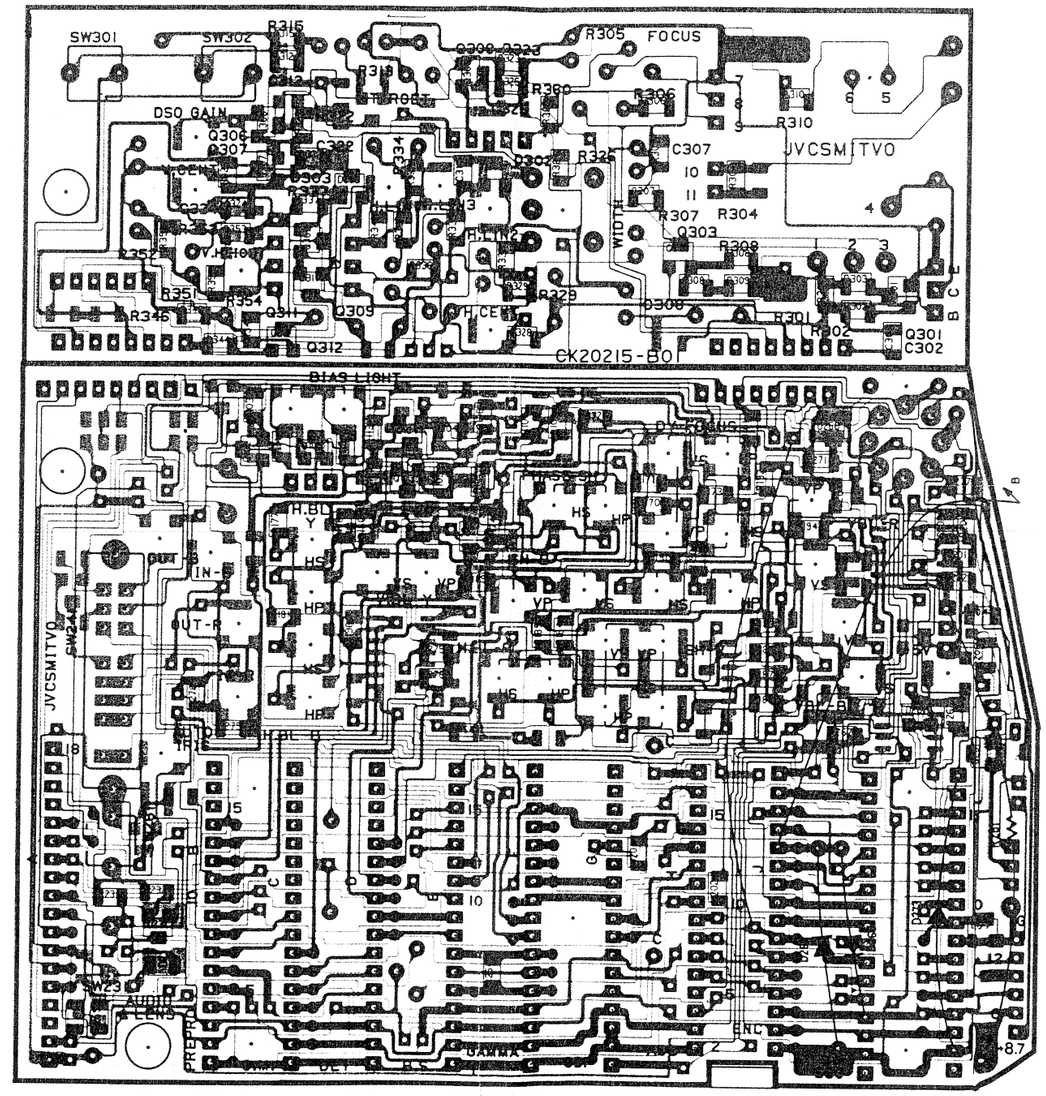
• CA-1571A

*Note: Red color shows top side pattern of PC BOARD.
*Note: La couleur rouge indique le diagramme du côté supérieur de la PCI.
*Hinweis: Die rote Farbe zeigt das obere Muster der Leiterplatte.

Gray color shows bottom side pattern of PC BOARD.
La couleur grise indique le diagramme du côté inférieur de la PCI.
Die graue Farbe zeigt das untere Muster der Leiterplatte.



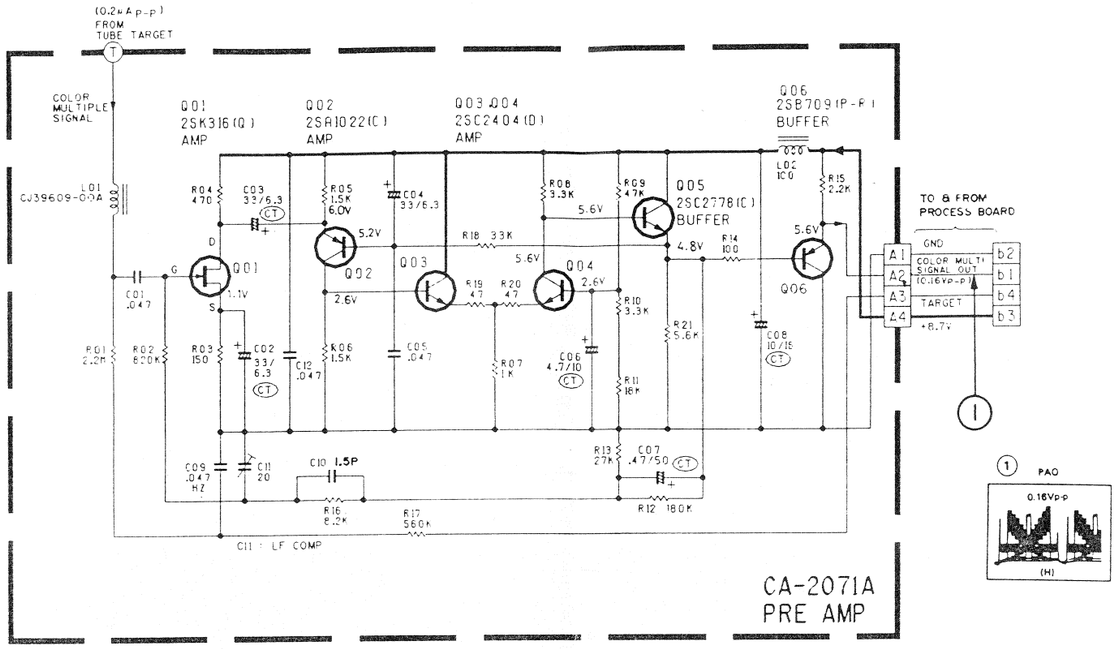
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

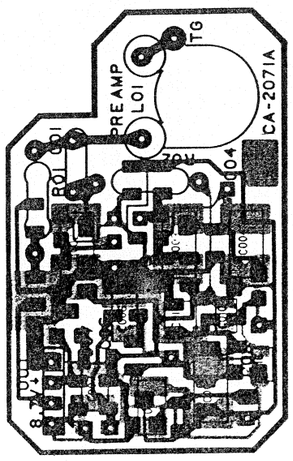
9-1 CIRCUIT DIAGRAM OF PRE-AMP
SCHEMA DE CIRCUIT DU PREAMPLIFICATEUR
SCHALTPLAN DES VORVERSTÄRKERS

- CA-2071A

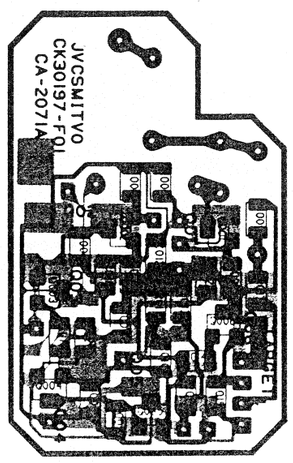


9-2 BOARD DIAGRAM OF PRE-AMP
SCHEMA DE PCI DU PREAMPLIFICATEUR
SCHALTBILD DES VORVERSTÄRKERS

- CA-2071A



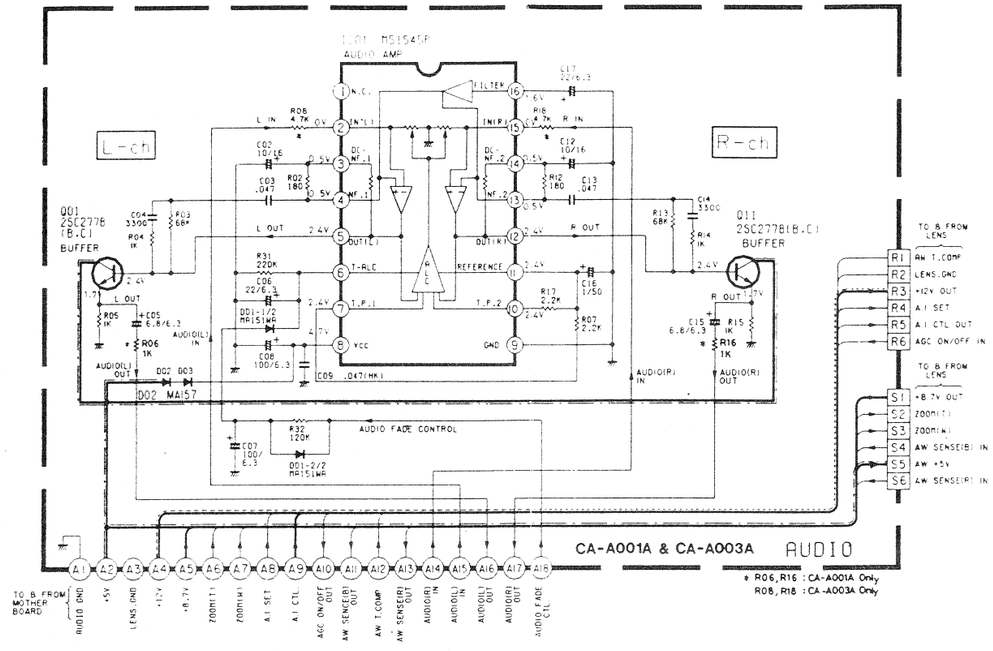
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

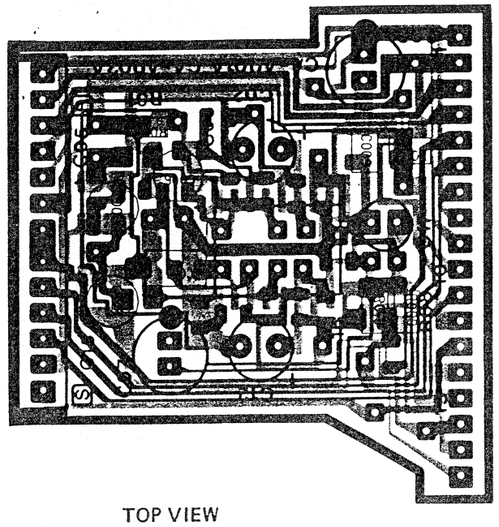
10-1 CIRCUIT DIAGRAM OF AUDIO BOARD Ⓐ
SCHEMA DE CIRCUIT DE LA PLAQUETTE AUDIO Ⓐ
SCHALTPLAN DER AUDIO-LEITERPLATTE Ⓐ

- CA-A001A/A003A

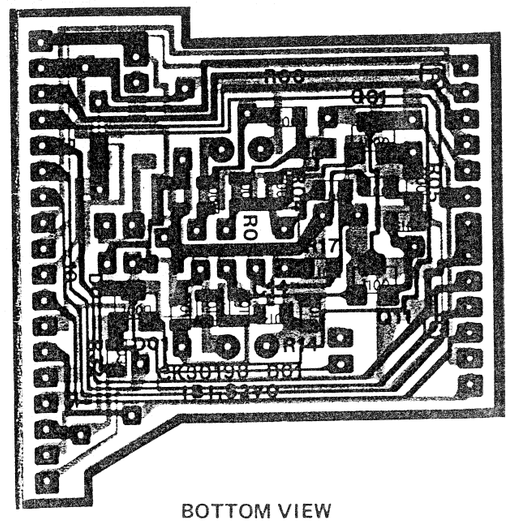


10-2 BOARD DIAGRAM OF AUDIO BOARD Ⓐ
SCHEMA DE PCI DE LA PLAQUETTE AUDIO Ⓐ
SCHALTBILD DER AUDIO-LEITERPLATTE Ⓐ

- CA-A001A



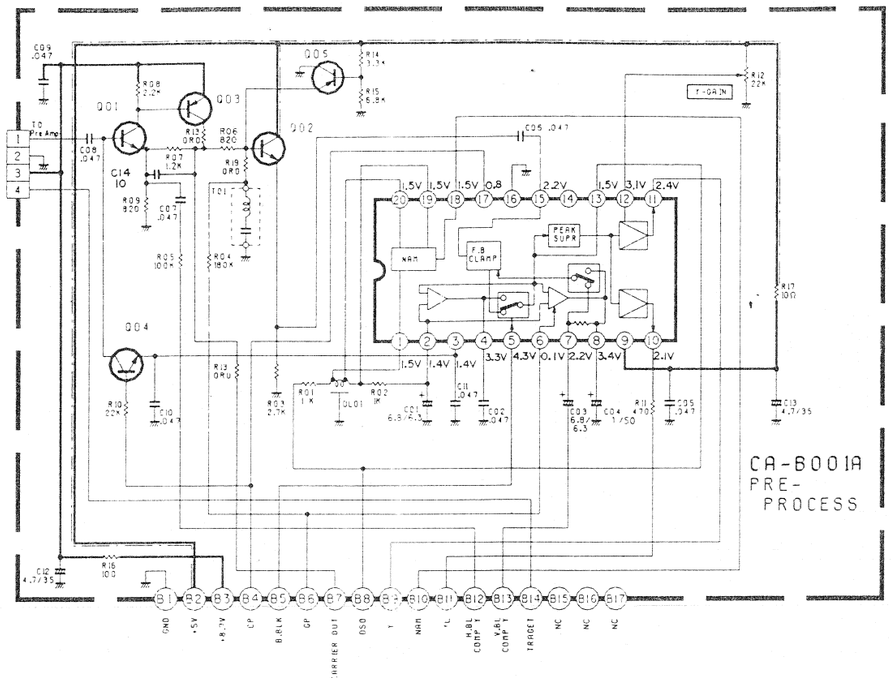
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

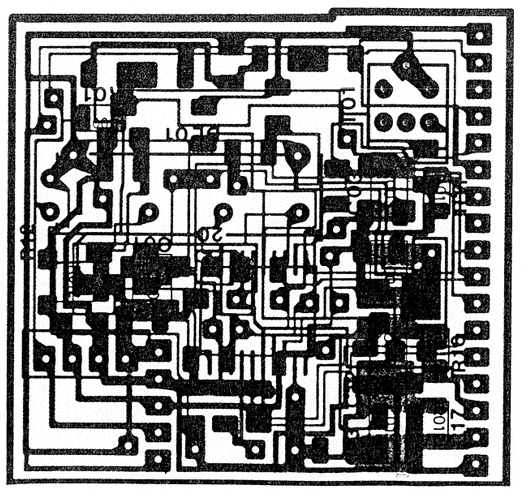
11-1 CIRCUIT DIAGRAM OF PRE-PROCESS BOARD Ⓑ
SCHEMA DE CIRCUIT DE LA PLAQUETTE DE PRETRAITEMENT Ⓑ
SCHALTPLAN DER VORVERARB.-LEITERPLATTE Ⓑ

● CA-B001A

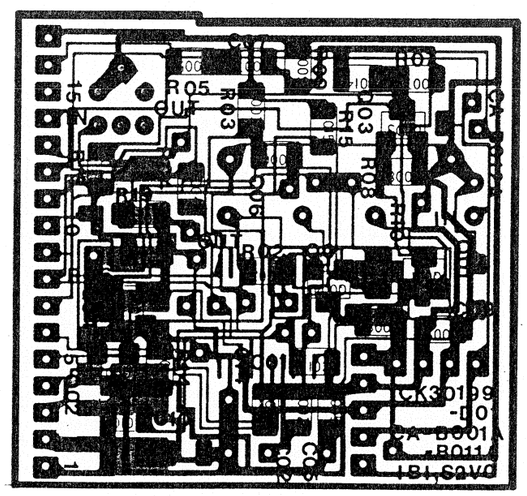


11-2 BOARD DIAGRAM OF PRE-PROCESS BOARD Ⓑ
SCHEMA DE PCI DE LA PLAQUETTE DE PRETRAITEMENT Ⓑ
SCHALTBILD DER VORVERARB.-LEITERPLATTE Ⓑ

● CA-B001A



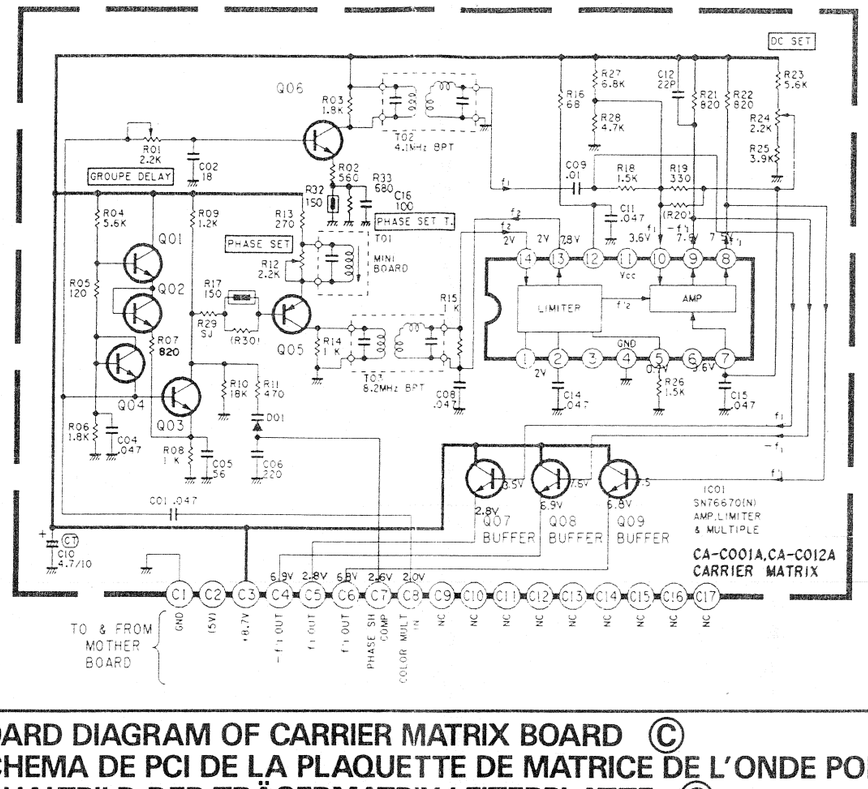
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

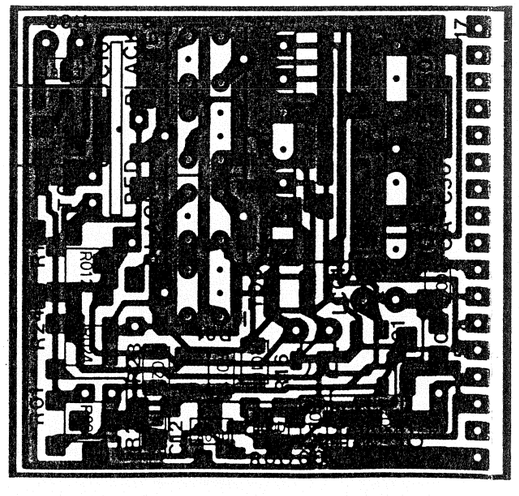
12-1 CIRCUIT DIAGRAM OF CARRIER MATRIX BOARD Ⓒ
SCHEMA DE CIRCUIT DE LA PLAQUETTE DE MATRICE DE L'ONDE PORTEUSE Ⓒ
SCHALTPLAN DER TRÄGERMATRIX-LEITERPLATTE Ⓒ

● CA-C001A

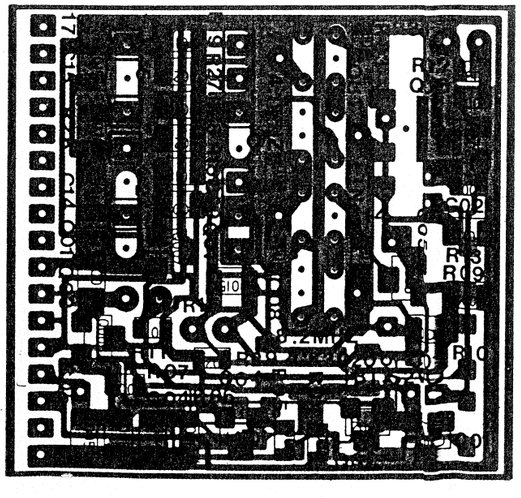


12-2 BOARD DIAGRAM OF CARRIER MATRIX BOARD Ⓒ
SCHEMA DE PCI DE LA PLAQUETTE DE MATRICE DE L'ONDE PORTEUSE Ⓒ
SCHALTBILD DER TRÄGERMATRIX-LEITERPLATTE Ⓒ

● CA-C001A



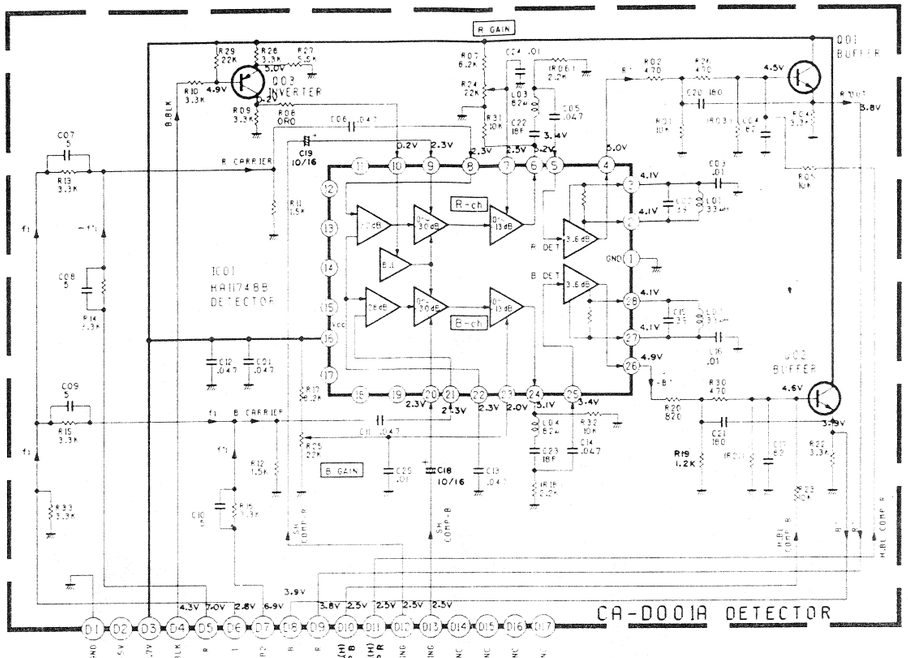
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

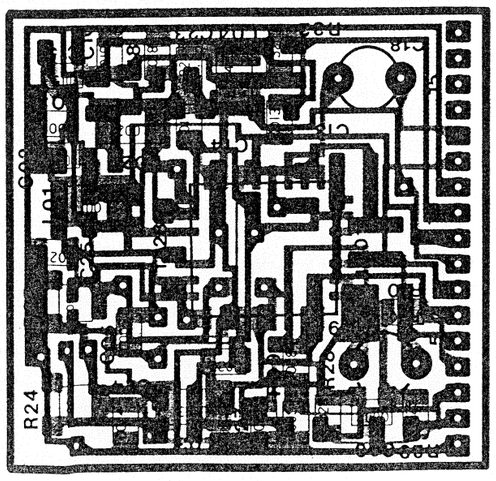
13-1 CIRCUIT DIAGRAM OF DETECTOR BOARD Ⓓ
SCHEMA DE CIRCUIT DE LA PLAQUETTE DE DETECTEUR Ⓓ
SCHALTPLAN DER DETEKTOR-LEITERPLATTE Ⓓ

● CA-D001A

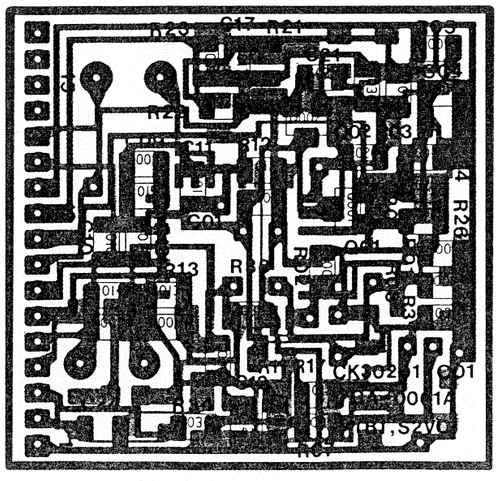


13-2 BOARD DIAGRAM OF DETECTOR BOARD Ⓓ
SCHEMA DE PCI DE LA PLAQUETTE DE DETECTEUR Ⓓ
SCHALTBILD DER DETEKTOR-LEITERPLATTE Ⓓ

● CA-D001A



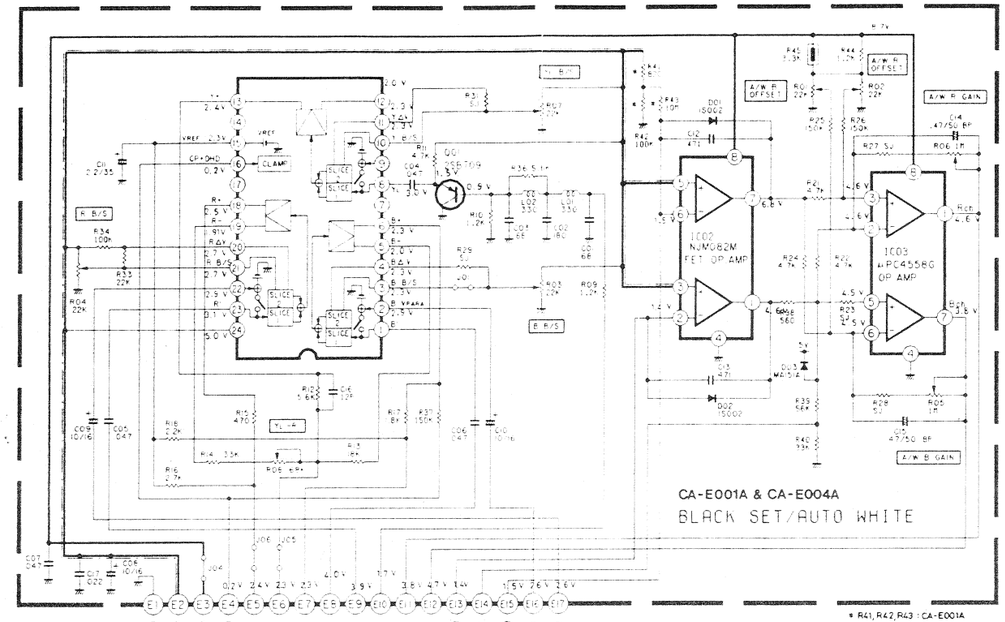
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

14-1 CIRCUIT DIAGRAM OF BLACK SET/AUTO WHITE BOARD Ⓔ
SCHEMA DE CIRCUIT DE LA PCI REGLAGE DU NOIR/ BLANC AUTOMATIQUE Ⓔ
SCHALTPLAN DER SCHWARZ/WEISSABGLEICH-LEITERPLATTE Ⓔ

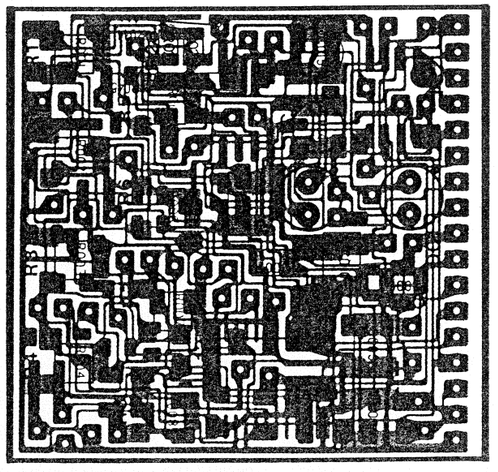
● CA-E001A/E004A



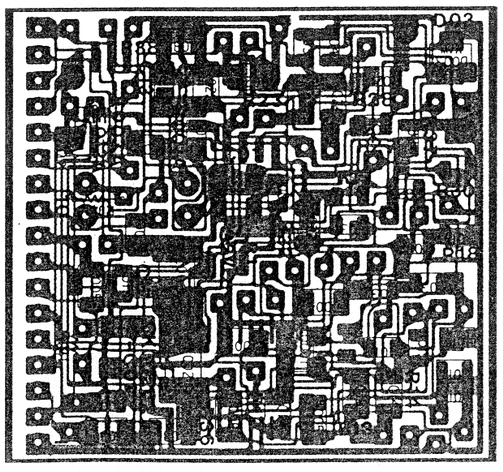
* R41, R42, R43 : CA-E001A

14-2 BOARD DIAGRAM OF BLACK SET/AUTO WHITE BOARD Ⓔ
SCHEMA DE PCI DE REGLAGE DU NOIR/BLANC AUTOMATIQUE Ⓔ
SCHALTBILD DER SCHWARZ/WEISSABGLEICH-LEITERPLATTE Ⓔ

● CA-E001A



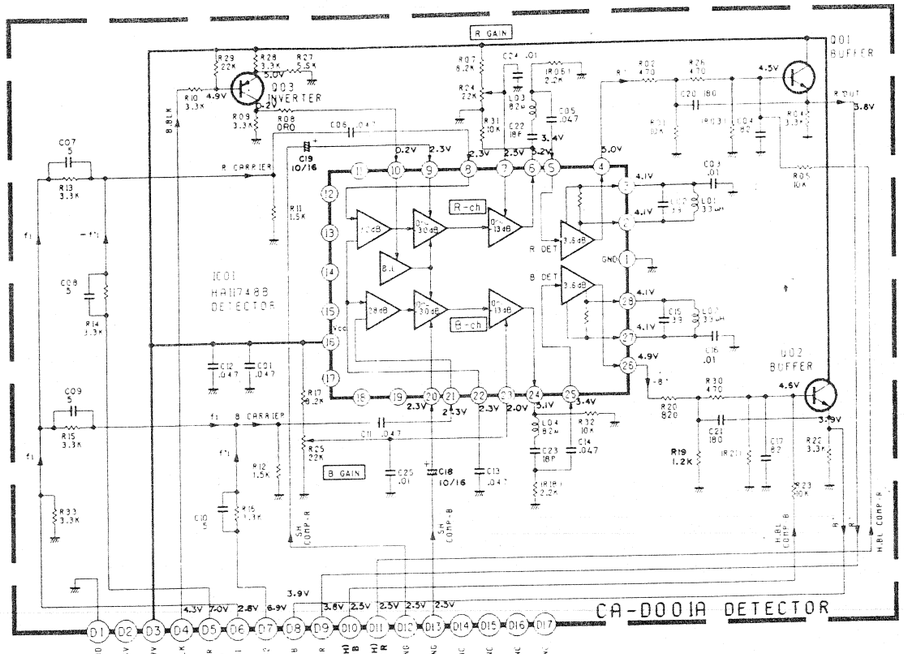
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

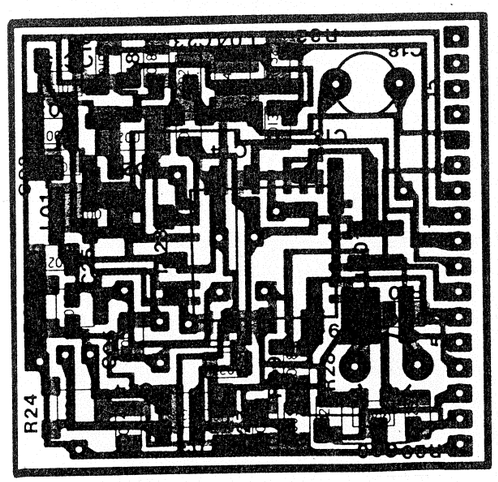
13-1 CIRCUIT DIAGRAM OF DETECTOR BOARD Ⓓ
SCHEMA DE CIRCUIT DE LA PLAQUETTE DE DETECTEUR Ⓓ
SCHALTPLAN DER DETEKTOR-LEITERPLATTE Ⓓ

● CA-D001A

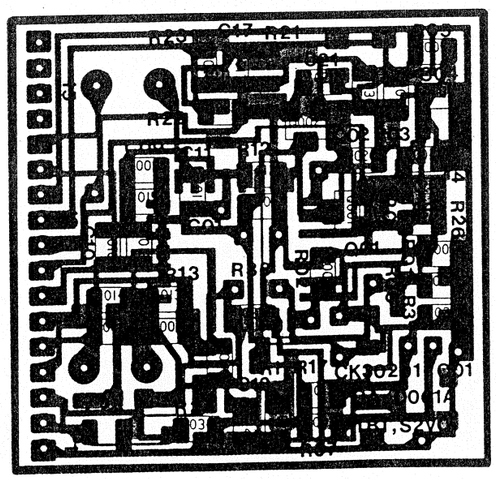


13-2 BOARD DIAGRAM OF DETECTOR BOARD Ⓓ
SCHEMA DE PCI DE LA PLAQUETTE DE DETECTEUR Ⓓ
SCHALTBILD DER DETEKTOR-LEITERPLATTE Ⓓ

● CA-D001A



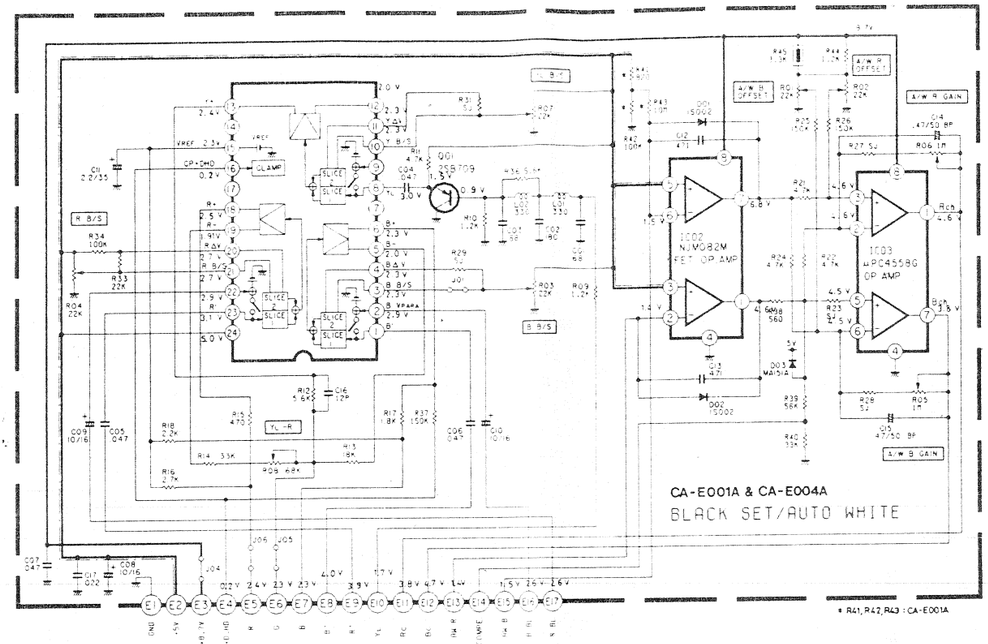
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

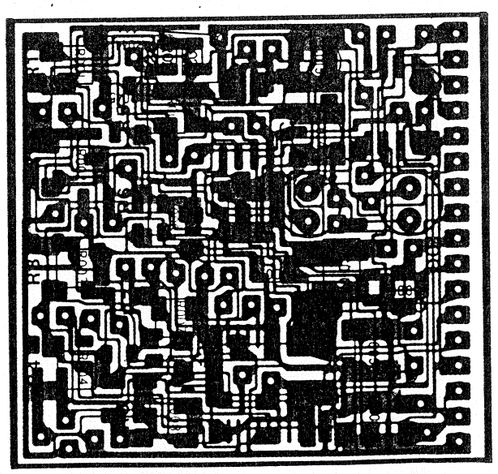
14-1 CIRCUIT DIAGRAM OF BLACK SET/AUTO WHITE BOARD Ⓔ
SCHEMA DE CIRCUIT DE LA PCI REGLAGE DU NOIR/ BLANC AUTOMATIQUE Ⓔ
SCHALTPLAN DER SCHWARZ/WEISSABGLEICH-LEITERPLATTE Ⓔ

● CA-E001A/E004A

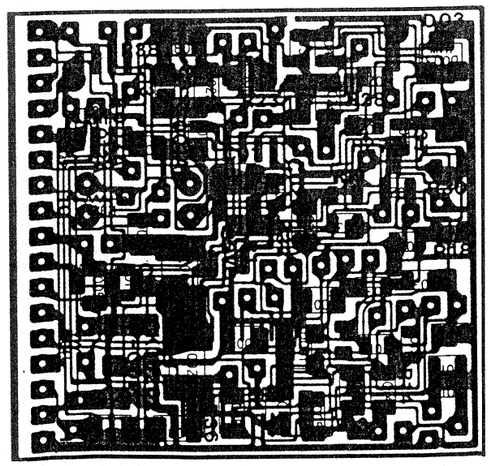


14-2 BOARD DIAGRAM OF BLACK SET/AUTO WHITE BOARD Ⓔ
SCHEMA DE PCI DE REGLAGE DU NOIR/BLANC AUTOMATIQUE Ⓔ
SCHALTBILD DER SCHWARZ/WEISSABGLEICH-LEITERPLATTE Ⓔ

● CA-E001A



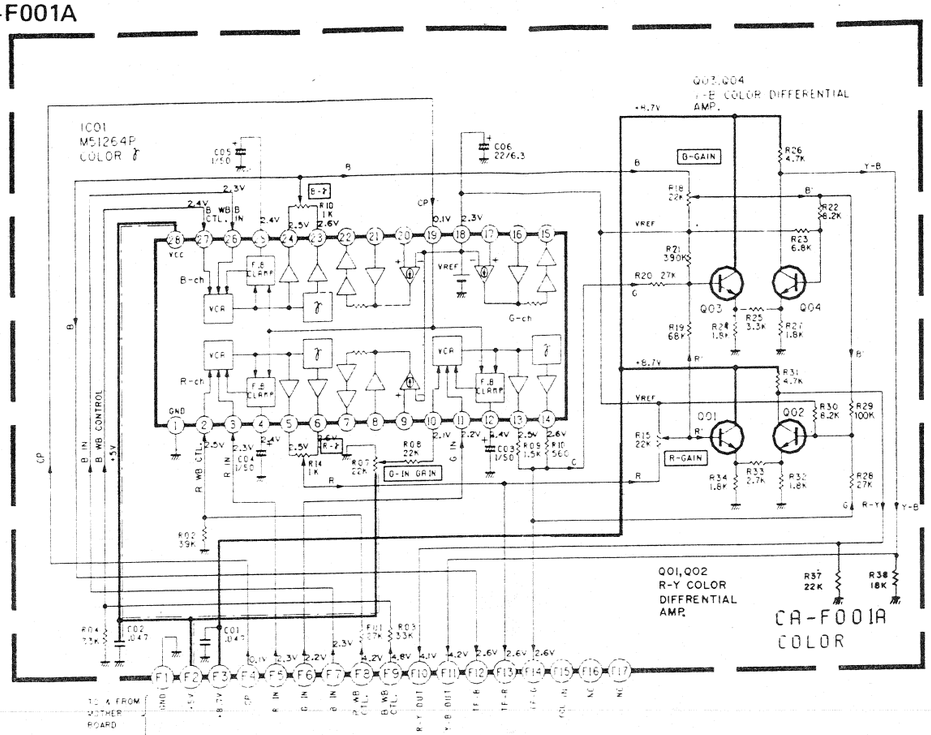
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

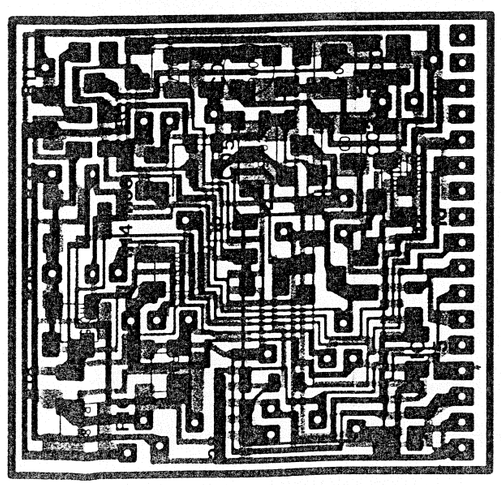
15-1 CIRCUIT DIAGRAM OF COLOR γ BOARD Ⓕ
SCHEMA DE CIRCUIT DE PLAQUETTE DE COULEUR γ Ⓕ
SCHALTPLAN DER FARBGAMMA-LEITERPLATTE γ Ⓕ

- CA-F001A

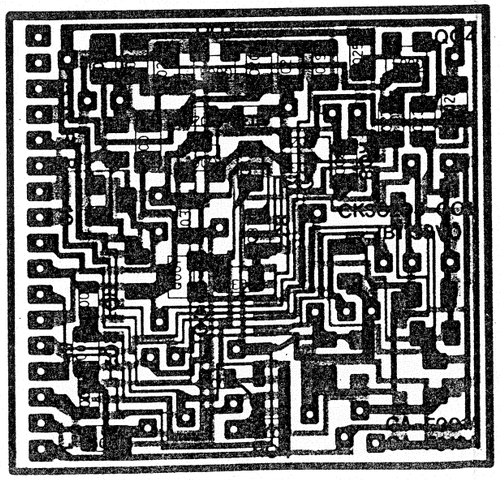


15-2 BOARD DIAGRAM OF COLOR γ BOARD Ⓕ
SCHEMA DE PCI DE PLAQUETTE DE COULEUR γ Ⓕ
SCHALTBILD DER FARBGAMMA-LEITERPLATTE γ Ⓕ

- CA-F001A



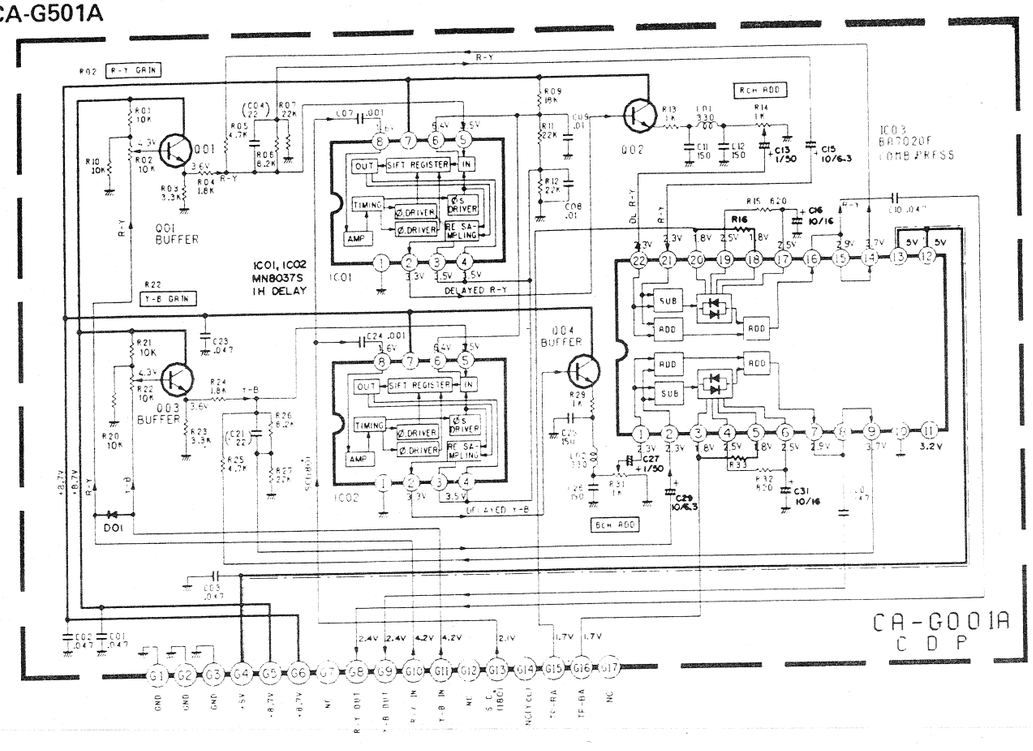
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

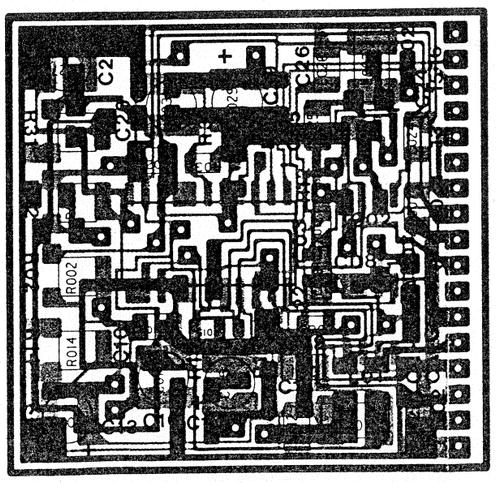
16-1 CIRCUIT DIAGRAM OF CDP BOARD Ⓖ
SCHEMA DE CIRCUIT DE LA PLAQUETTE CDP Ⓖ
SCHALTPLAN DER CDP-LEITERPLATTE Ⓖ

- CA-G501A

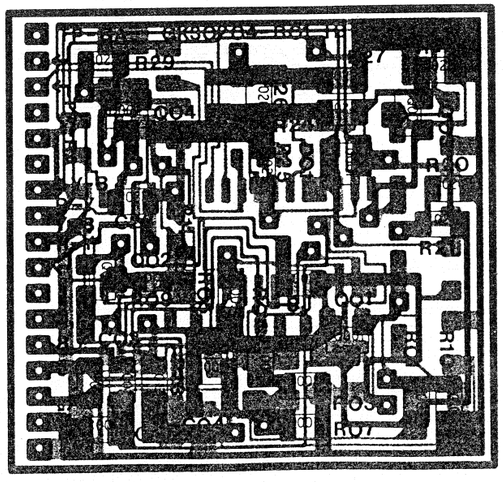


16-2 BOARD DIAGRAM OF CDP BOARD Ⓖ
SCHEMA DE PCI DE PLAQUETTE CDP Ⓖ
SCHALTBILD DER CDP-LEITERPLATTE Ⓖ

- CA-G501A



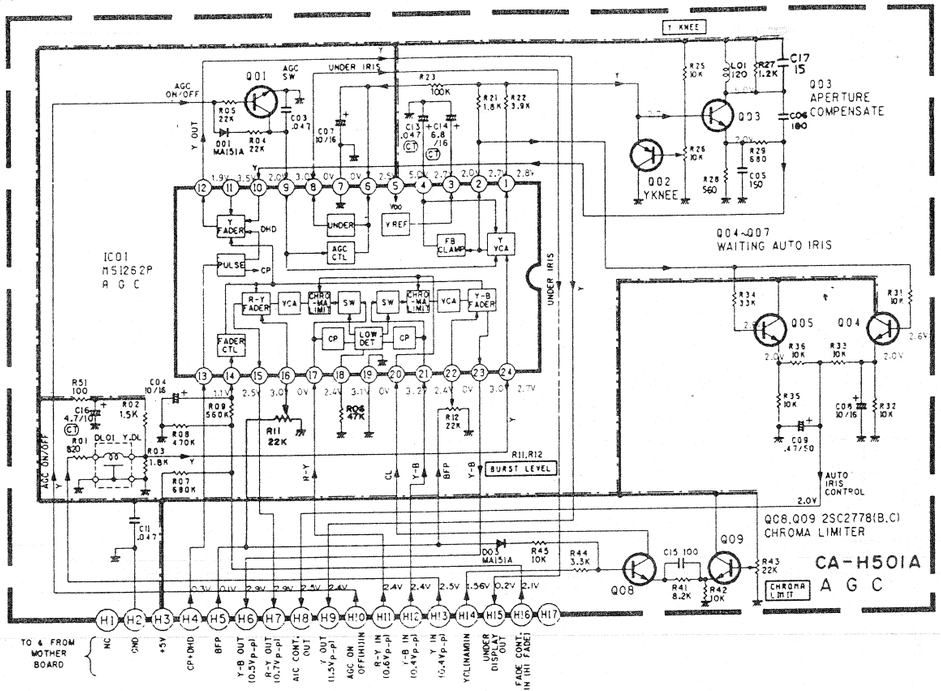
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

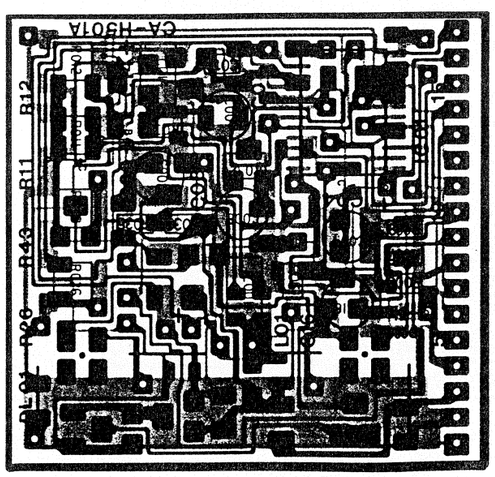
17-1 CIRCUIT DIAGRAM OF AGC BOARD (H)
SCHEMA DE CIRCUIT DE PLAQUETTE CAG (H)
SCHALTPLAN DER AVR-LEITERPLATTE (H)

● CA-H501A

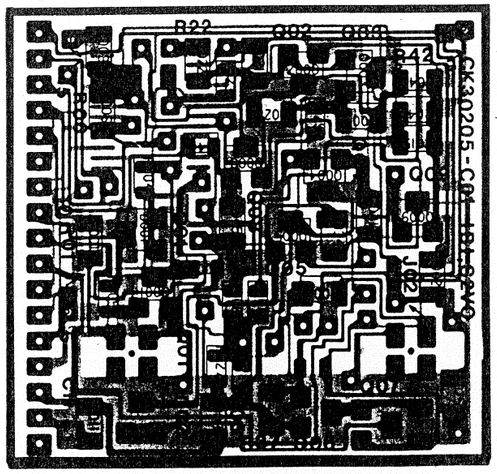


17-2 BOARD DIAGRAM OF AGC BOARD (H)
SCHEMA DE PCI DE PLAQUETTE CAG (H)
SCHALTBILD DER AVR-LEITERPLATTE (H)

● CA-H501A



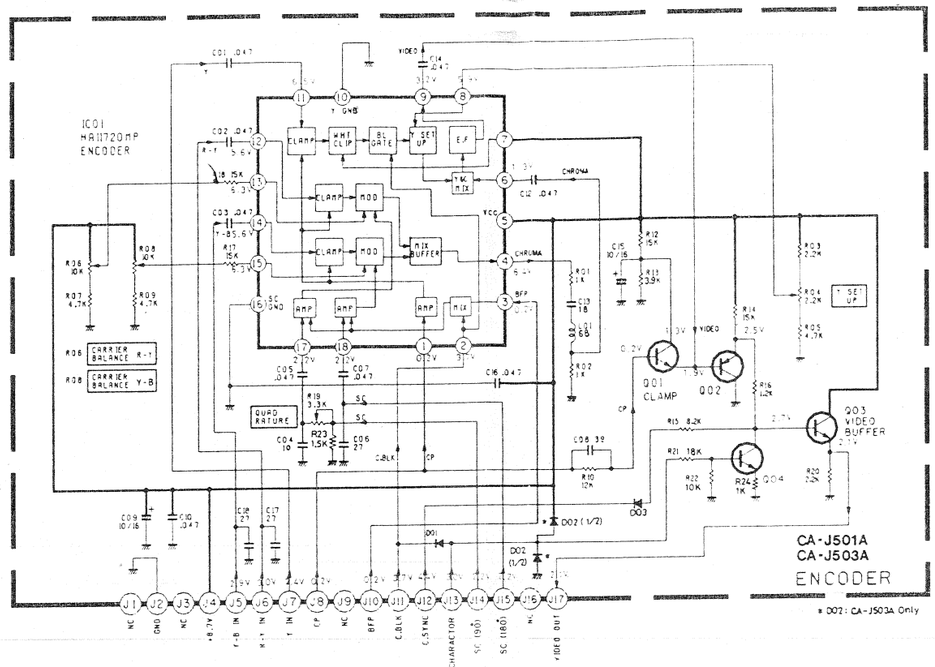
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

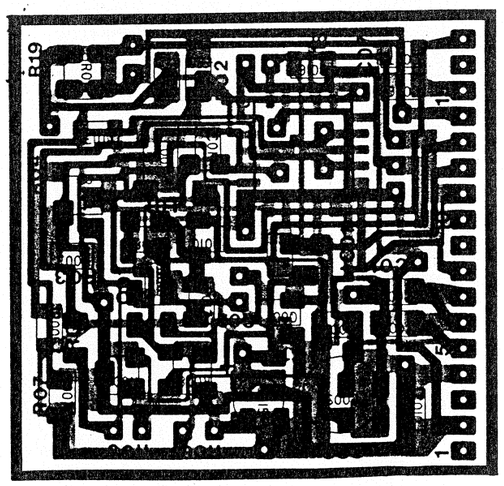
18-1 CIRCUIT DIAGRAM OF ENCODER BOARD (J)
SCHEMA DE CIRCUIT DE PLAQUETTE DE CODEUR (J)
SCHALTPLAN DER FARBCODER-LEITERPLATTE (J)

● CA-J501A/J503A

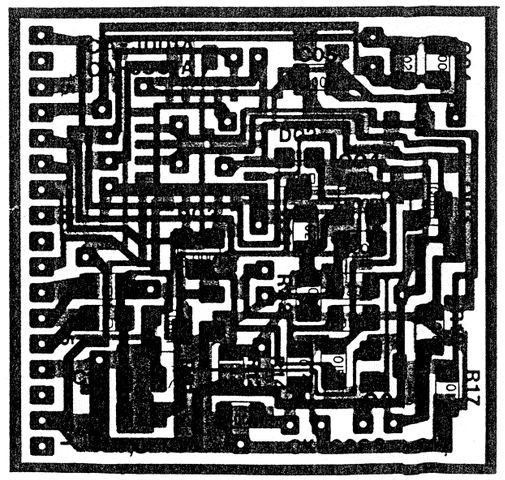


18-2 BOARD DIAGRAM OF ENCODER BOARD (J)
SCHEMA DE PCI DE PLAQUETTE DE CODEUR (J)
SCHALTBILD DER FARBCODER-LEITERPLATTE (J)

● CA-J501A



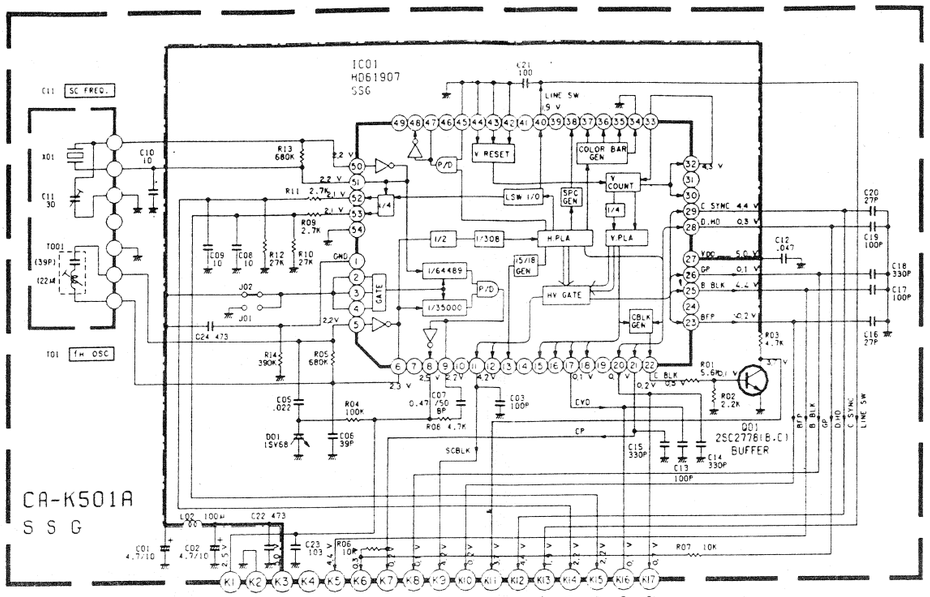
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

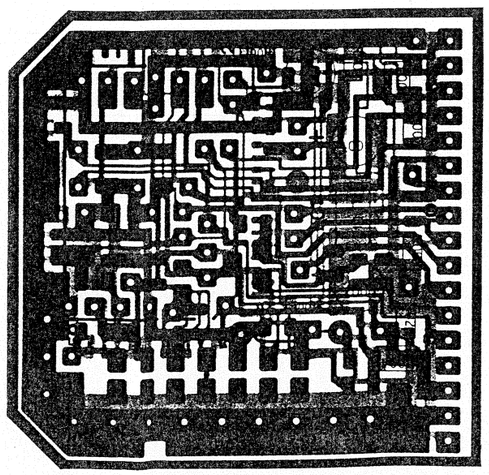
19-1 CIRCUIT DIAGRAM OF SSG BOARD (K)
SCHEMA DE CIRCUIT DE PLAQUETTE SSG (K)
SCHALTPLAN DER TAKTGEBER-LEITERPLATTE (K)

- CA-K501A

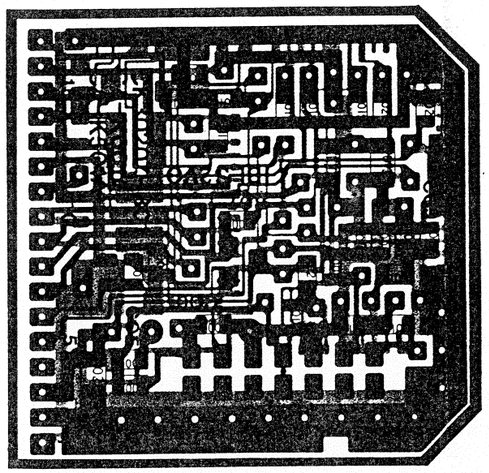


19-2 BOARD DIAGRAM OF SSG BOARD (K)
SCHEMA DE PCI DE PLAQUETTE SSG (K)
SCHALTBILD DER TAKTGEBER-LEITERPLATTE (K)

- CA-K501A



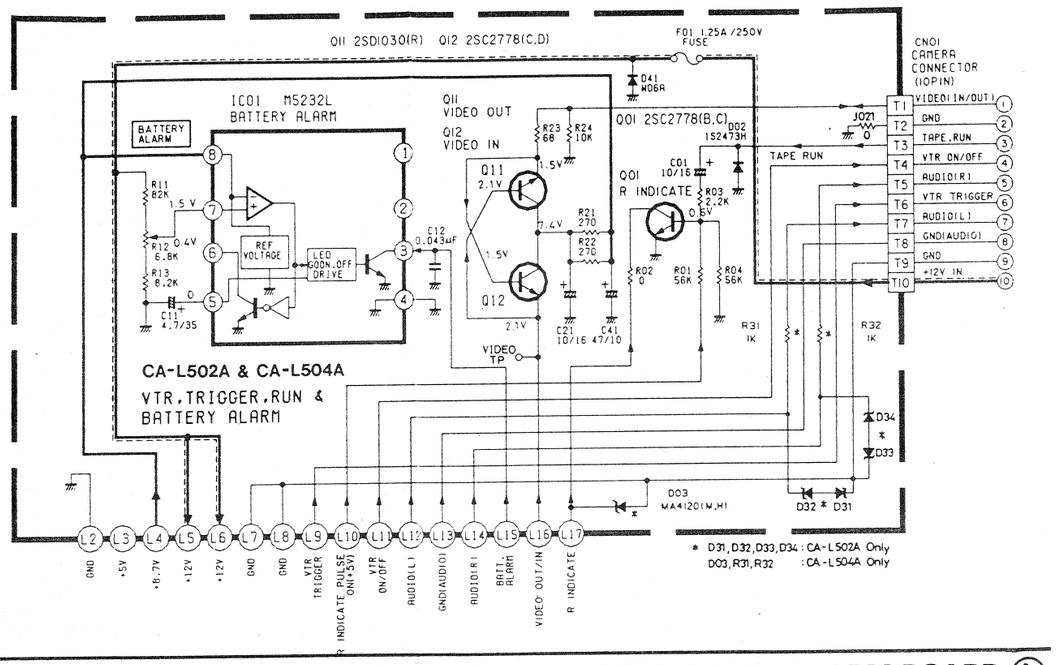
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

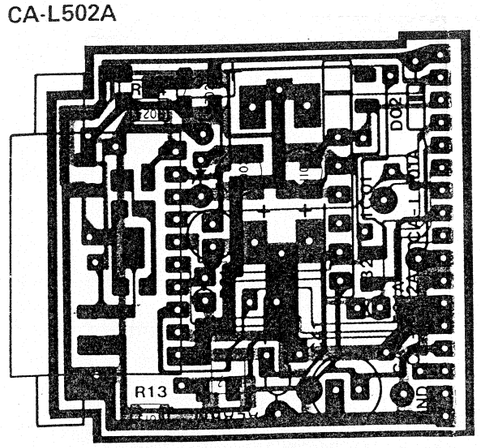
20-1 CIRCUIT DIAGRAM OF VTR TRIGGER, RUN & BATTERY ALARM BOARD (L)
SCHEMA DE CIRCUIT DE PLAQUETTE DE DECLENCHEUR DE VTR, MARCHE & ALARME DES PILES (L)
SCHALTPLAN DES VIDEORECORDERTRIGGER, KAMERALAUF & BATTERIEALARM-LEITERPLATTE (L)

- CA-L502A/L504A

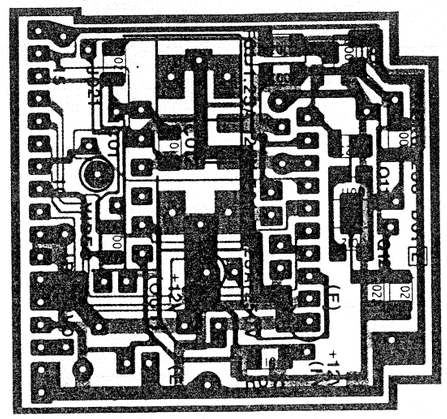


20-2 CIRCUIT DIAGRAM OF VTR TRIGGER, RUN & BATTERY ALARM BOARD (L)
SCHEMA DE PCI DE DECLENCHEUR DE VTR, MARCHE & ALARME DES PILES (L)
SCHALTBILD DES VIDEORECORDERTRIGGER, KAMERALAUF & BATTERIEALARM-LEITERPLATTE (L)

- CA-L502A



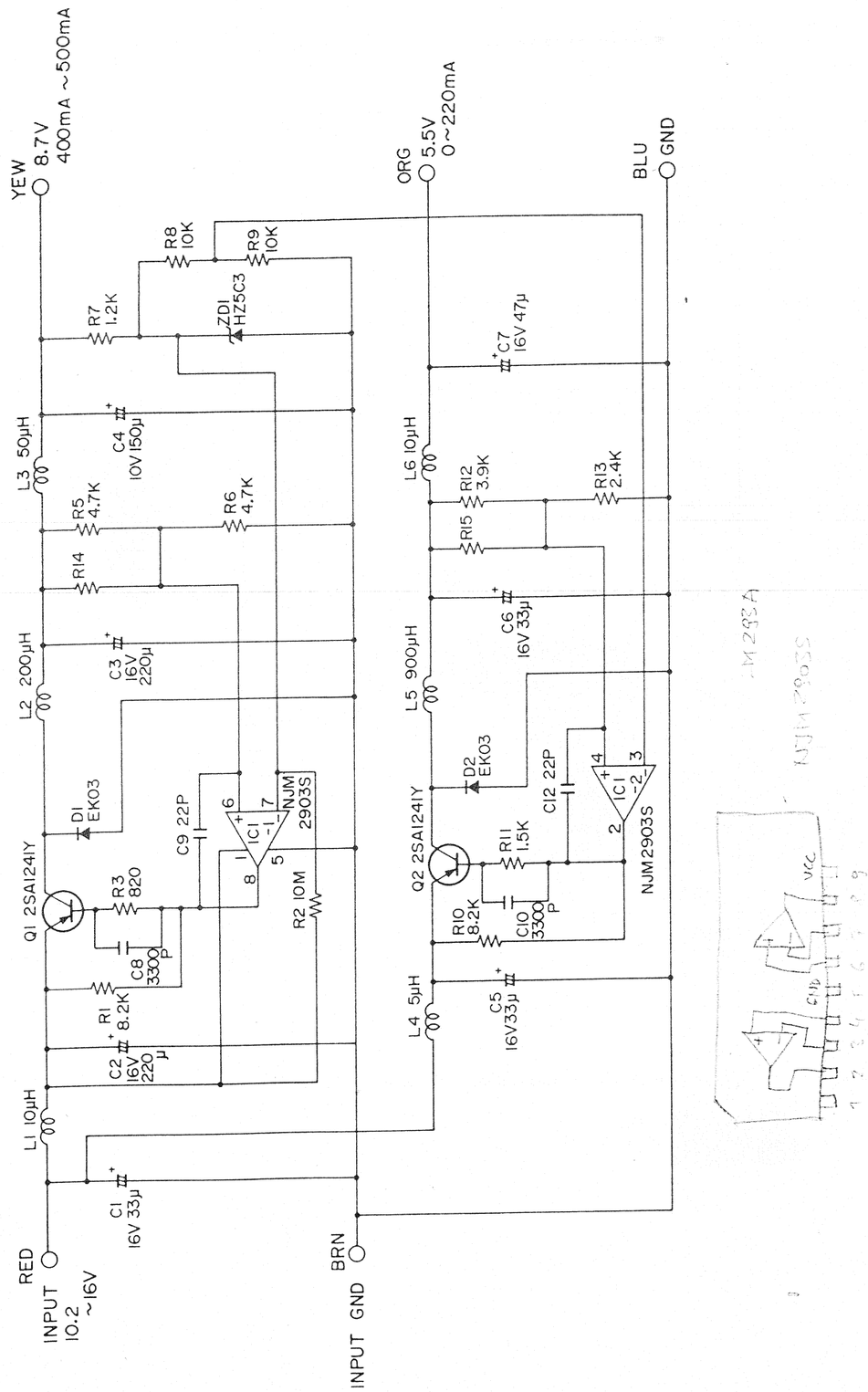
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

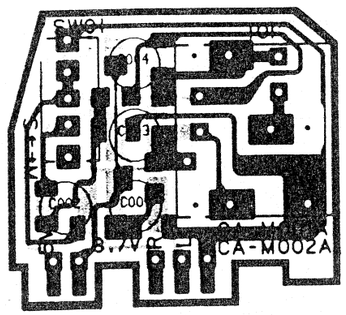
21 CIRCUIT DIAGRAM OF SW. REGULATOR
SCHEMA DE CIRCUIT DU REGULATEUR DE COMMANDES
SCHALTPLAN DES SW. REGLERS

• CE40687

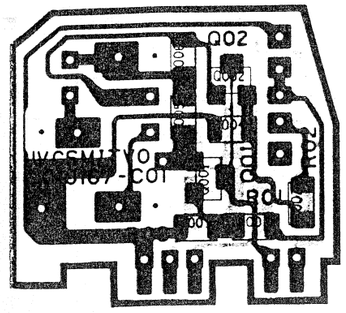


22 BOARD DIAGRAM OF MIC BOARD
SCHEMA DE PCI DE PLAQUETTE DE MICROPHONE
SCHALTBILD DER MIKROFON-LEITERPLATTE

• CA-M001A

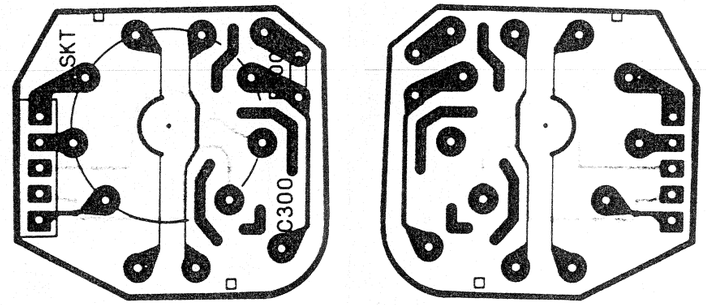


TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

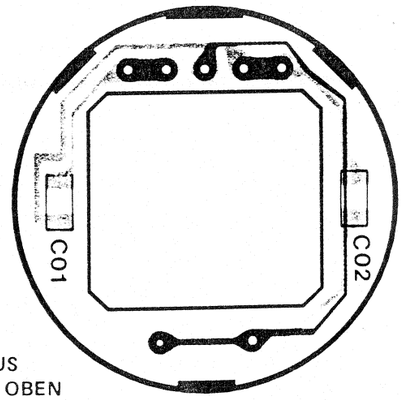
23 BOARD DIAGRAM OF TUBE SOCKET BOARD
SCHEMA DE PCI DE PLAQUETTE DE PRISE DE TUBE
SCHALTBILD DER RÖHRENFASSUNG-LEITERPLATTE



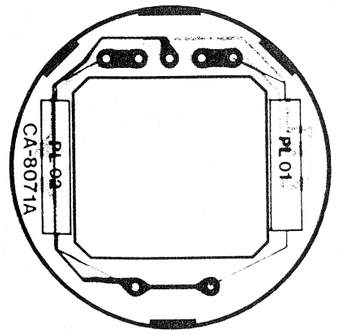
TUBE SIDE
COTE TUBE
RÖHRENSEITE

BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

24 BOARD DIAGRAM OF BIAS LIGHT BOARD
SCHEMA DE PCI DE PLAQUETTE DE LA LAMPE DE POLARISATION
SCHALTBILD DER VORSPANNUNGSLICHT-LEITERPLATTE



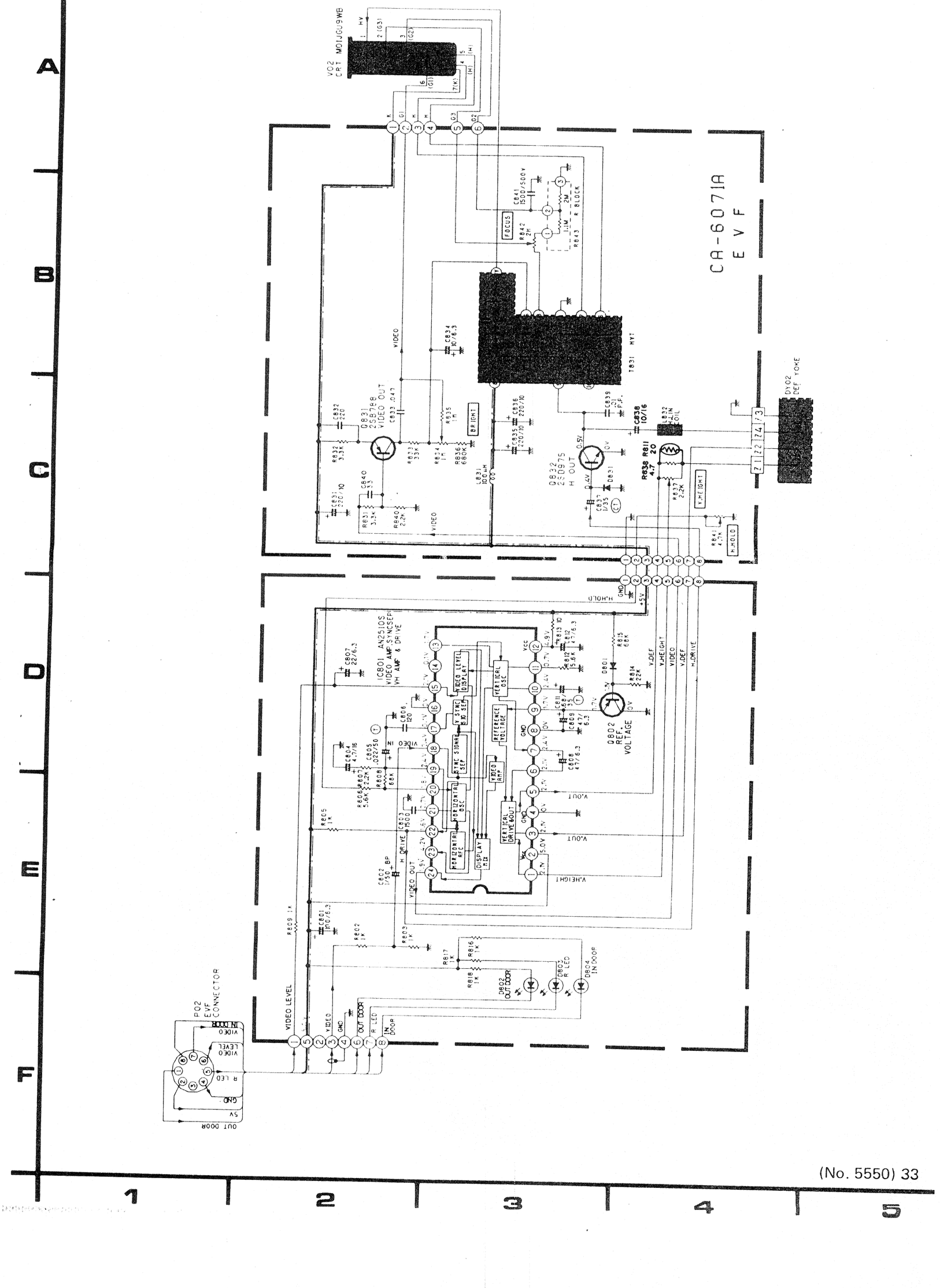
TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

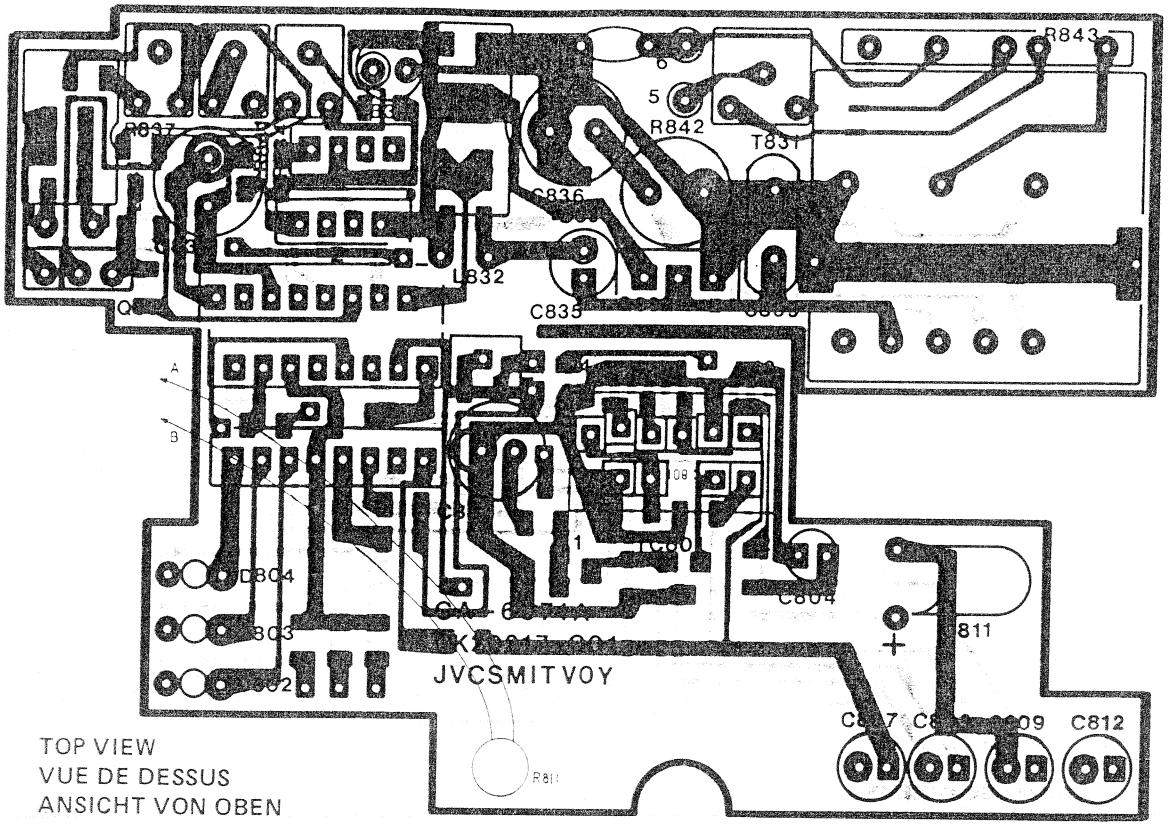
25-1 CIRCUIT DIAGRAM OF EVF
SCHEMA DE CIRCUIT DU VISEUR ELECTRONIQUE
SCHALTPLAN DES ELEKTRONISCHEN SUCHERS

- CA-6071A

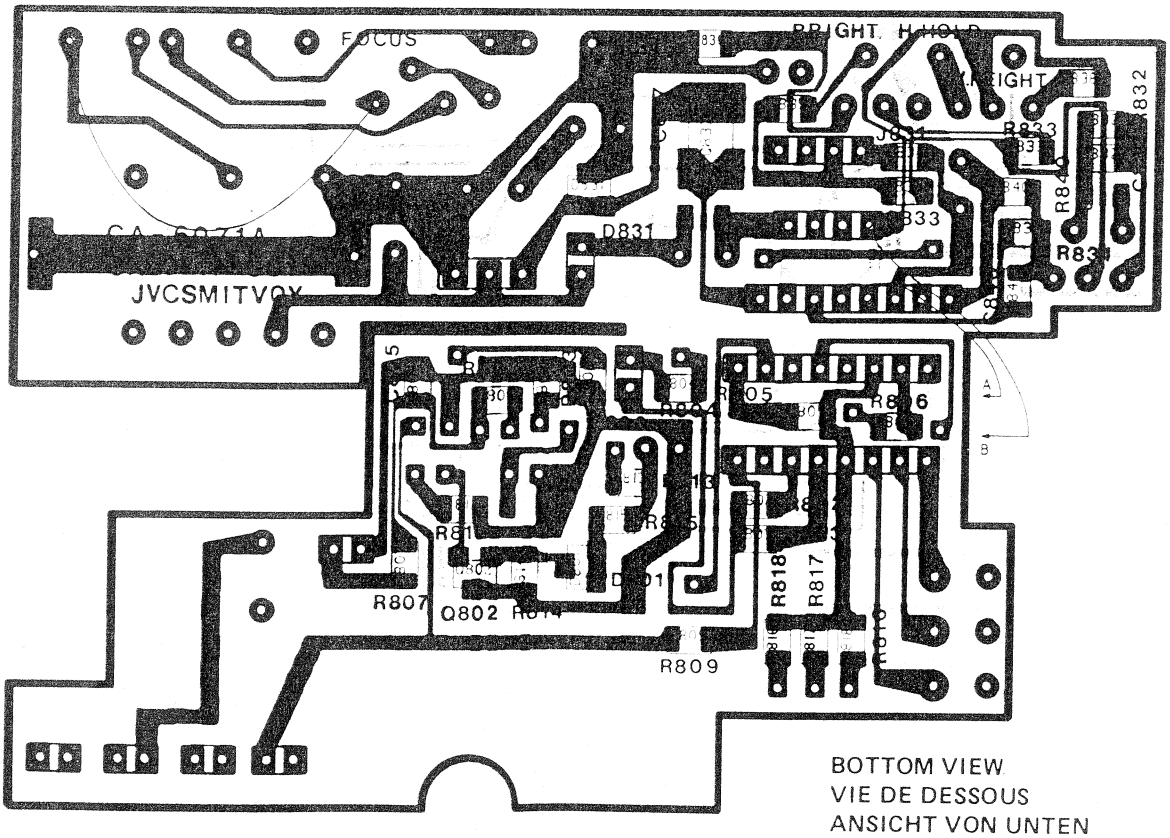


25 -2 BOARD DIAGRAM OF EVF
SCHEMA DE PCI DU VISEUR ELECTRONIQUE
SCHALTBILD DES ELEKTRONISCHEN SUCHERS

● CA-6071A



TOP VIEW
VUE DE DESSUS
ANSICHT VON OBEN



BOTTOM VIEW
VIE DE DESSOUS
ANSICHT VON UNTEN

GX-N7E
PARTS LIST
LISTE DES PIECES
TEILELISTTE

No. 5
Aug.

CONTENTS

PACKING 5
PACKING PARTS LIST 5
EXPLODED VIEW OF CAMERA BODY 6
SYSTEM ASSEMBLY REPLACEMENT PARTS LIST 7
PRINTED CIRCUIT BOARD PARTS LIST
1. CA-1575B MOTHER BOARD 10
2. CA-A003A AUDIO BOARD 15
3. CA-B001A PREPROCESS BOARD 16
4. CA-C001A CARRIER MATRIX BOARD 17
5. CA-D001A DETECTOR BOARD 19
6. CA-E004A BLACK SET/AUTO WHITE BOARD 21
7. CA-F001A COLOR GAMMA BOARD 23
8. CA-G501A CDP BOARD 24
9. CA-H501A AGC BOARD 26
10. CA-J503A ENC. BOARD 28
11. CA-K501A SSG BOARD 30
12. CA-L504A VTR BOARD 32
13. CA-M003A MIC BOARD 33
14. CA-2071A PREAMP BOARD 34
15. CA-6071A EVF BOARD 35
16. CA-8071A BIAS LIGHT BOARD 36

TABLE DES MATIERES

EMBALLAGE 5
LISTE DES PIECES D'EMBALLAGE 5
VUE ECLATEE DU BOITIER DE CAMERA 6
LISTE DES PIECES DE RECHANGE DE L'ENSEMBLE DU SYSTEME 7
LISTE DES PIECES DES PLAQUETTES DE CIRCUITS IMPRIMES
1. PLAQUETTE MERE CA-1575B 10
2. PLAQUETTE AUDIO CA-A003A 15
3. PLAQUETTE DE PRETRAITEMENT CA-B001A 16
4. PLAQUETTE DE MATRICE DE L'ONDE PORTEURSE CA-C001A 17
5. PLAQUETTE DE DETECTEUR CA-D001A 19
6. PLAQUETTE DE REGLAGE DU NOIR/BLANC AUTOMATIQUE CA-E004A 21
7. PLAQUETTE DE GAMMA COULEUR CA-F001A 23
8. PLAQUETTE CDP CA-G501A 24
9. PLAQUETTE CAG CA-H501A 26
10. PLAQUETTE DE CODEUR CA-J1503A 28
11. PLAQUETTE SSG CA-K501A 30
12. PLAQUETTE DE DECLENCHEUR VTR & ALARME DES PILES CA-L504A 32
13. PLAQUETTE DE MICROPHONE CA-M003A 33
14. PLAQUETTE DE PREAMPLIFICATEUR CA-2071A 34
15. PLAQUETTE DU VISEUR ELECTRONIQUE CA-6071A 35
16. PLAQUETTE DE LAMPE DE POLARISATION CA-8071A 36

INHALT

VERPACKUNG 5
TEILELISTE DER VERPACKUNG 5
EXPLODIERTE ANSICHT DES KAMERA-KÖRPERS 6
SYSTEM-ERSATZTEILLISTE 7
TEILELISTE FÜR GEDRUCKTE LEITERPLATTEN
1. CA-1575B HAUPTLEITERPLATTE 10
2. CA-A003A AUDIO-LEITERPLATTE 15
3. CA-B001A VORVERARB.-LEITERPLATTE 16
4. CA-C001A TRÄGERMATRIX-LEITERPLATTE 17
5. CA-D001A DETEKTOR-LEITERPLATTE 19
6. CA-E004A SCHWARZ/WEISSABGLEICH-LEITERPLATTE 21
7. CA-F001A FARBGAMMA-LEITERPLATTE 23
8. CA-G501A CDP-LEITERPLATTE 24
9. CA-H501A AVR-LEITERPLATTE 26
10. CA-J503A FARBCODER-LEITERPLATTE 28
11. CA-K501A TAKTGEBER-LEITERPLATTE 30
12. CA-L504A VIDEORECORDERAUSLÖSER & BATTERIEALARM 32
13. CA-M003A MIKROFON-LEITERPLATTE 33
14. CA-2071A VORVERSTÄRKER-LEITERPLATTE 34
15. CA-6071A LEITERPLATTE DES ELEKTRONISCHEN SUCHERS 35
16. CA-8071A VORSPANNUNGSLICHT-LEITERPLATTE 36

IMPORTANT SAFETY NOTICE:

Components identified by the ⚠ symbol in this parts information have special characteristics for safety.
These critical safety components are designed to "fail safe" under abnormal conditions. The failure of any one component often causes stress in other components which could lead to smoke or fire or other hazards. Because of this, components are selected and tested under actual fault conditions to ensure safe operation. Replacement with anything other than the identical JVC part may present a hazard.

NOTE 1 PART SUPPLY OF NO PART NUMBER

The parts indicated with — in the Part No. column will not be supplied.

NOTE 2 DECODING OF RESISTOR, CAPACITOR AND TOLERANCE

RESISTOR All resistance values in ohms K: 1000 M: 1000000		CAPACITOR Capacitance values in pF or in μF		TOLERANCE	
C R	Carbon Resistor	BP E Cap.	Bi-Polar (or Non-Polar) Electrolytic Capacitor	F	±1%
CH MG R	Chip Metal Glaze Resistor			G	±2%
CH V R	Chip Variable Resistor	C Cap.	Ceramic Capacitor	J	±5%
MF R	Coating Metal Film Resistor	CH AL BP Cap.	Chip Aluminum Bi-Polar Capacitor	K	±10%
Comp. R	Composition Resistor	CH AL BP E Cap.	Chip Aluminum Bi-Polar Electrolytic Capacitor	M	±20%
F R	Fusible Resistor			N	±30%
HV R	High Voltage Resistor	CH AL E Cap.	Chip Aluminum Electrolytic Capacitor	H	+50% -10
LPTC R	Linear Positive Temperature Coefficient Resistor	CH C Cap.	Chip Ceramic Capacitor		
		CH Tan. E Cap.	Chip Tantalum Electrolytic Capacitor	P	+100% -0
MF R	Metal Film Resistor	E Cap.	Electrolytic Capacitor		
MG R	Metal Glaze Resistor	M Cap.	Mylar Capacitor	R	+30% -10
OM R	Oxide Metal Film Resistor	MM Cap.	Metalized Mylar Capacitor		
P R	Plate Resistor	MP Cap.	Metalized Polystyrol Capacitor	Z	+80% -20
UNF R	Nonflammable Resistor	MPP Cap.	Metalized PP Capacitor		
V R	Variable Resistor	PP Cap.	Polypropylene Capacitor		
		PS Cap.	Polystyrol Capacitor		
		Tan. Cap.	Tantalum Capacitor		

NOTICE DE SECURITE IMPORTANTE

Les composants qui sont identifiés par le ⚠ symbole dans les présents renseignements relatifs aux pièces possédant des caractéristiques de sécurité d'une nature spéciale.
Ces composants de sécurité critiques sont dits être fiables quand une panne se produit. Lorsqu'un composant tombe en panne, ceci entraîne souvent un désordre de fonctionnement parmi les autres composants, et ceci peut être à l'origine d'une formation de fumée ou d'autres risques. Dans cette éventualité, les composants sont sélectionnés et soumis à des essais réunissant les cas de panne possibles pour leur assurer une sécurité intégrale. Le remplacement de ces composants par tout autre composant non identique aux pièces JVC risque de présenter quelque danger.

NOTE 1 FOURNITURE DE PCI

Les pièces indiquées avec les tirés – de la colonne des numéros de pièces ne seront pas fournies.

NOTE 2 DECODAGE DES ABREVIATIONS DES RESISTANCES, CONDENSATEURS ET TOLERANCES

RESISTANCES Toutes les valeurs de résistance sont données en ohms K: 1000 M: 1000000		CONDENSATEURS Les valeurs de capacité sont données en pF ou en μF.		TOLERANCES	
C R	Résistance au carbone	BP E Cap.	Condensateur électrolytique bipolaire (ou homopolaire)	F	±1%
CH MG R	Résistance ultramince recouverte de métal			G	±2%
		C Cap.	Condensateur céramique	J	±5%
CH V R	Résistance variable ultramince	CH AL BP Cap.	Condensateur bipolaire aluminium ultramince	K	±10%
				M	±20%
MF R	Résistance à couche métallique	CH AL BP E Cap.	Condensateur électrolytique bipolaire aluminium ultramince	N	±30%
				H	+50% -10
Comp. R	Résistance complexe	CH AL E Cap.	Condensateur électrolytique aluminium ultramince		
F R	Résistance à fusible			P	+100% -0
HV R	Résistance à haute tension	CH C Cap.	Condensateur céramique ultramince		
LPTC R	Résistance à coefficient de température positive linéaire	CH Tan. E Cap.	Condensateur électrolytique ultramince au tantale	R	+30% -10
		E Cap.	Condensateur électrolytique	Z	+80% -20
MF R	Résistance á couche métallique	M Cap.	Condensateur Mylar		
		MM Cap.	Condensateur Mylar métallisé		
MG R	Résistance recouverte de métal	MP Cap.	Condensateur au polystyrole métallisé		
		MPP Cap.	Condensateur PP métallisé		
OM R	Résistance à couche métal-oxyde	PP Cap.	Condensateur au polypropylène		
		PS Cap.	Condensateur au polystyrole		
P R	Résistance de plaque	Tan. Cap.	Condensateur au tantale		
UNF R	Résistance ininflammable				
V R	Résistance variable				

WICHTIGER SICHERHEITS-HINWEIS:

Die in dieser Teile-Liste mit ⚠ markierten Teile weisen spezielle Sicherheits-Eigenschaften auf. Diese kritischen Sicherheits-Teile sind so ausgelegt, daß sie bei unnormalen Bedingungen folgeschadensicher sind. Das Ausfallen irgendwelcher Teile führt oft zu Überlastungen von anderen Teilen, was zu Rauchentwicklung, Feuer und anderen Gefahren führen kann. Daher werden die Teile unter tatsächlichen Störungsbedinungen ausgewählt und geprüft, um einen sicheren Betrieb zu gewährleisten. Wenn Beim Auswechseln andere als Original-JVC-Teile verwendet werden, kann dies eine Gefahrenquelle darstellen.

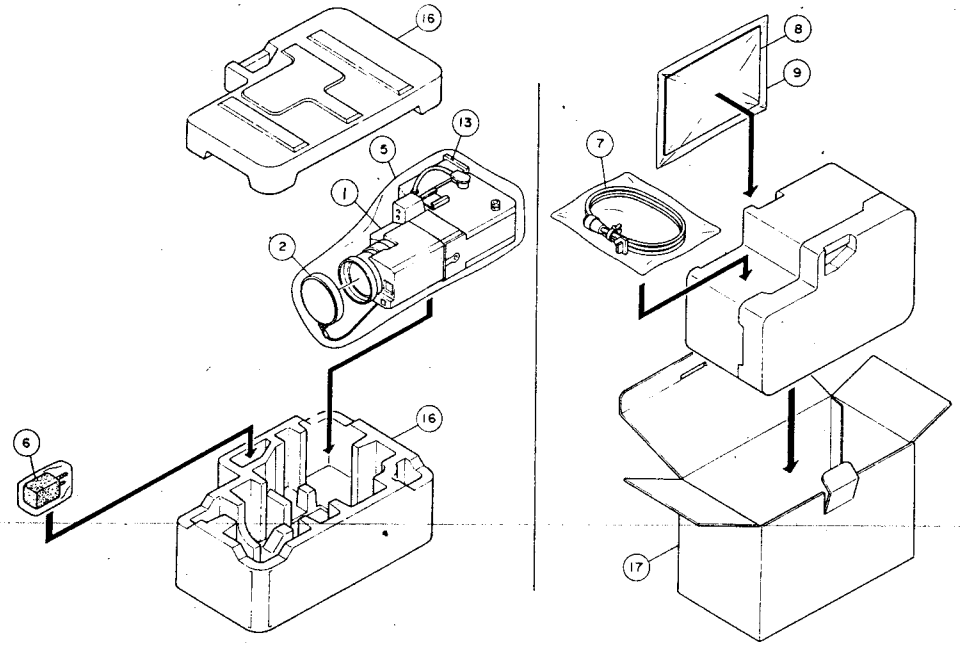
HINWEIS 1 LIEFERUNG VON TEILEN OHNE TEILENUMMER

Die mit — in der Spalte "Teile-Nr." markierten Teile werden nicht geliefert.

HINWEIS 2 BEZEICHNUNG DER WIDERSTÄNDE, KONDENSATOREN UND TOLERANZEN

WIDERSTÄNDE Alle Widerstandswerte sind in Ohm angegeben K: 1000 M: 1000000		**KONDENSATOREN** Die Kapazitätswerte sind in pF oder in μF angegeben.		**TOLERANZ**	
C R	Kohlewiderstand	BP E Cap.	Bipolarer (oder nichtpolarer) Elektrolytkondensator	F	±1%
CH MG R	Chip-Metallglausurwider-stand	C Cap.	Keramikkondensator	G	±2%
CH V R	Chip-Regelwiderstand	CH AL BP Cap.	Chip-Al-bipolar-Kondensator	J	±5%
MF R	Überzogener Metallschicht-widerstand	CH AL BP E Cap.	Chip-Al-bipolar-Elektrolytkondensator	K	±10%
Comp. R	Massewiderstand	CH AL E Cap.	Chip-Al-Elektrolytkondensator	M	±20%
F R	Schmelzwiderstand	CH C Cap.	Chip-Keramikkondensator	N	±30%
HV R	Hochspannungswiderstand	CH Tan. E Cap.	Chip-Tantal-Elektrolytkondensator	H	+50% -10
LPTC R	Widerstand mit linearem positiven Temperatur-koeffizienten	E Cap.	Elektrolytkondensator	P	+100% -0
MF R	Metallschichtwiderstand	M Cap.	Mylarkondensator	R	+30% -10
MG R	Metallglasurwiderstand	MM Cap.	Metallisierter Mylarkondensator	Z	+80% -20
OM R	Oxidmetallschichtwider-stand	MP Cap.	Metallisierter Polystyrolkondensator		
P R	Plattenwiderstand	MPP Cap.	Metallisierter Polypropylen-kondensator		
UNF R	Nichtbrennbarer Wider-stand	PP Cap.	Polypropylenkondensator		
V R	Regelwiderstand	PS Cap.	Polystyrolkondensator		
		Tan. Cap.	Tantalkondensator		

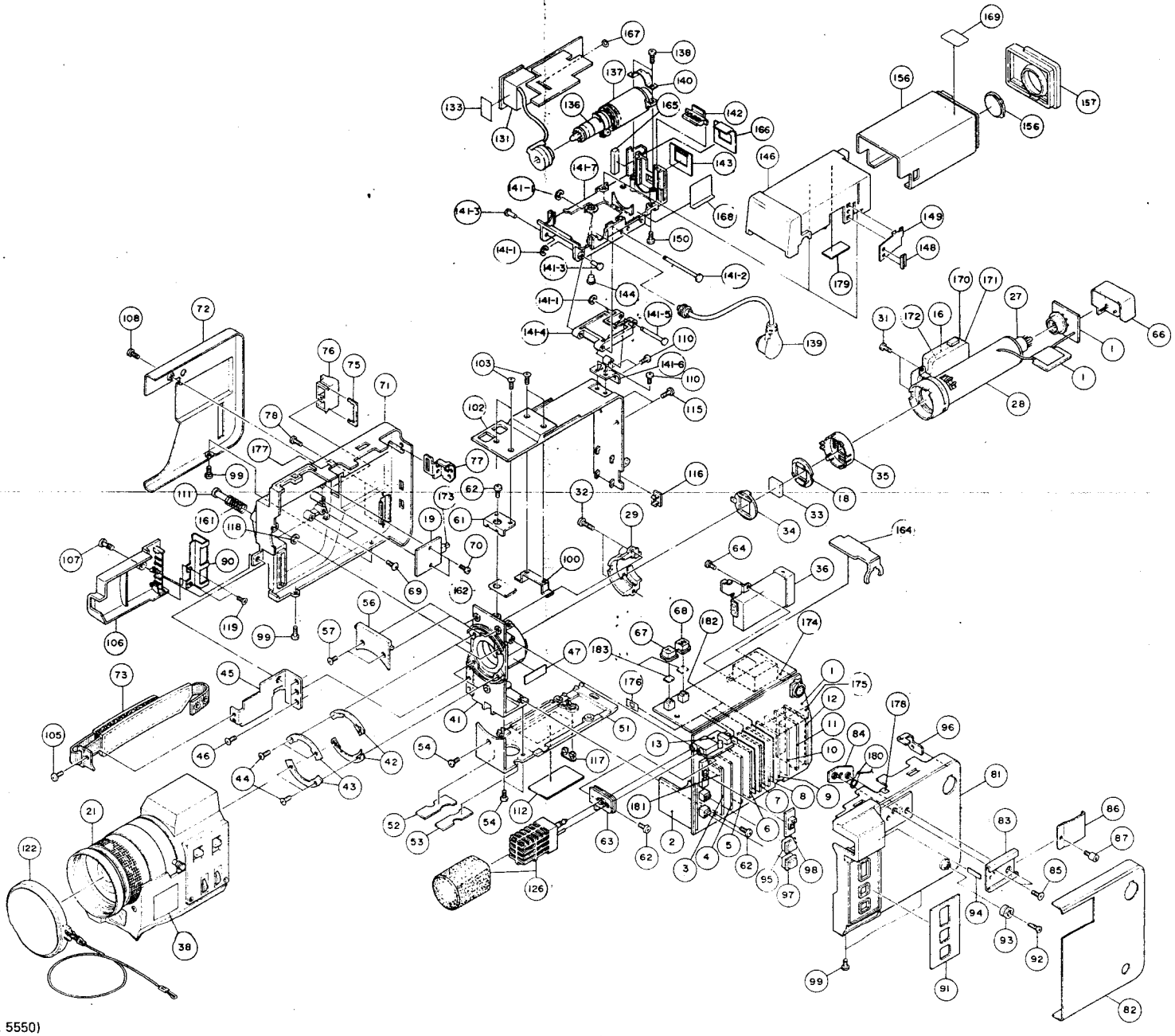
PACKING
EMBALLAGE
VERPACKUNG



■ PACKING PARTS LIST
■ LISTE DES PIECES D'EMBALLAGE
■ TEILELISTE DER VERPACKUNG

VIEW NO. No. de schéma ANSICHT-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
1		————	Camera Body	GX-N7E
2		CM41571-00A	Lens Cap Ass'y	
5		CP30004-021	Poly Bag	For the main body
6		CE40698-00B	Mic	STEREO
7		VC-444-2E	Camera Cable	
8		GX-N7E-IB-A	Inst. Book	
9		CM30751-010	Poly Bag	
13		————	EVF Ass'y	N7E-EVF
16		CP10293-00A	Cushion Ass'y	
17		CP20065-030	Packing Case	

EXPLODED VIEW OF CAMERA BODY
VUE ECLATEE DU BOITIER DE CAMERA
EXPLODIERTE ANSICHT DES KAMERA-KÖRPERS



■ SYSTEM ASSEMBLY REPLACEMENT PARTS LIST
■ LISTE DES PIECES DE RECHANGE DE L'ENSEMBLE DU SYSTEME
■ SYSTEM-ERSATZTEILLISTE

Supply of Mother Board and Module Board
Fourniture de plaquettesmèreset de plaquettes de module
Lieferung der Hauptleiterplatte und der Modul-Leiterplatte

VIEW NO. No. de schéma ANSICHT-NR.	SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
1		⚠	————	MOTHER BOARD	CA-1575B
2		⚠	CA-A003A	AUDIO BOARD	
3		⚠	CA-B001A	PREPROCESS BOARD	
4		⚠	CA-C001A	CARRIER MATRIX BOARD	
5		⚠	CA-D001A	DETECTOR BOARD	
6		⚠	CA-E004A	BLACK SET/ AUTO WHITE BOARD	
7		⚠	CA-F001A	COLOR GAMMA BOARD	
8		⚠	CA-G501A	CDP BOARD	
9		⚠	CA-H501A	AGC BOARD	
10		⚠	CA-J503A	ENC. BOARD	
11		⚠	CA-K501A	SSG BOARD	
12		⚠	CA-L504A	VTR TRIG. & BATT. ALARM BOARD	
13		⚠	CA-M003A	MIC BOARD	
16		⚠	CA-2071A	PREAMP BOARD	
18		⚠	————	BIAS LIGHT BOARD	CA-8071A
19		⚠	————	VTR SW BOARD	CA-9071A
21			CLC02206-A-BFZ	Zoom Lens	
			DA7-0697-000	Hood	Included Zoom Lens (View No. 21)
27		⚠	S4250	Pickup Tube	1/2" Newvicon
28		⚠	CE40688-00A	Def. Yoke	
29			CM31196-001	DY Holder	
31			SPSP2603Z	Screw	x 2 For securing the Preamp Board
32			SPSP2606Z	Screw	x 2 For securing the DY Holder
33			CJ39646-00B	L P Filter Ass'y	
34			CM20531-001	Light Guide	
35			CM20532-001	LPF Holder	
36			CE40687-A0A	SW Regulator	
38			CM42654-001	AF Label	
41			CM10320-A0A	Chassis	
42			CM42434-001	Mount Spring	x 2
43			CM42433-001	Mount Plate	x 2
44			SSEK2035	Mini Screw	x 4
45			CM31240-A02	Grip Bracket	
46			SHSK2040M	Screw	x 3 For securing the Grip Bracket
47			CM40442-003	Insulator	
51			CM20539-00B	Bottom Base Ass'y	
52			CM42457-001	Tripod Leather L	Left side
53			CM42458-001	Tripod Leather R	Right side
54			SHSK2040M	Screw	x 3 For securing the Bottom Base Ass'y

VIEW NO. No. de schéma ANSICHT-NR.	SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
56			CM42439-001	Front Cover	
57			SHSK2040M	Screw	x 2 For securing the Front Cover
61			CM42437-001	PB Bracket	
62			SPSP2606Z	Screw	x 3 For securing the Mother Board
63		⚠	CM42440-001	Mic Cover	
64			SPSH2040M	Mini Screw	For securing the SW Regulator
66			CM42594-001	Socket Insulator	
67			CM42452-A01	Zoom Knob-T	
68			CM42453-A01	Zoom Knob-W	
69			SBSB2606Z	Tap Screw	x 2
70			C41474-4	Tap Screw	x 2
71		⚠	CM10335-002	Body Cover-L	Left side
72			CM20537-001	Body AL Cover (L)	Left side
73			CM31211-00A	Belt Ass'y	
75			CM42498-001	Knob Lock	
76			CM42447-001	VTR Knob	
77			CM42615-002	Hook Bracket (A)	
78			SPSH2060M	Mini Screw	x 2
81		⚠	CM10334-003	Body Cover-R	Right side
82			CM20534-001	Body AL Cover-R	Right side
83			CM42443-A01	Accessory Shoe	
84			CM42473-A01	Plate Nut-S	
85			SSEP2604	Screw	x 2
86			CM42442-001	Shoe Spring	
87			CM42444-001	Shoe Screw	
90			CM42620-A01	Socket Holder	
91			CM31209-001	Control Plate	
92			C41474-4	Tap Screw	
93			CM42503-001	CG Hook	
94			CM42454-A01	Mic Label	
95			CM42448-A02	Push Knob	
96			CM42614-A01	Plate Nut-R (A)	
97			CM42448-A01	Push Knob	
98			CM42449-001	Slide Knob	
99			SPSH2050M	Mini Screw	x 4
100			CM42613-A01	Plate Nut-T	
102		⚠	CM20540-003	Top & Rear Cover	
103			SHSK2040M	Screw	x 4
105			SDSP2606M	Screw	
106			CM31210-002	Grip Cover	
107			CM42446-A01	G Cover Screw	
108			SPSK2040R	Mini Screw	
110			SPSK2045M	Mini Screw	x 4
111			CM42687-001	Lens Lock Screw	
112			CM31245-007	Name Plate	
115			SPSH2050M	Mini Screw	x 2
116			CM42455-A01	VTR SW Cap	

VIEW NO. No. de schéma ANSICHT-NR.	SYMBOL NO. No. de symbole SYMBOL-NR.		PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
117			CM42493-001	VR Cap	
118			REE2000	E Ring	
119			C41474	Tap. Screw	x 2
122			CM42571-00A	Lens Cap Ass'y	With string
126			CE40698-00B	Mic	STEREO
			GU-PW-080-PUE	Wind Guard	Included Mic (View No. 126)
131			————	EVF Board	CA-6071A
133			C40954-2	Caution Label	High Voltage Dangerous
136		⚠	M01JGU9WB	Picture Tube	1/2 " B/W
137		⚠	CE40679-A0A	DY Ass'y	
138			C41474-2	Tap Screw	x 2 For fastening the DY Ass'y to the cover
139			CH41007-00A	EVF Cable	
140			CM42589-001	DY Holder	
141		⚠	CM31308-00B	EVF Bottom Ass'y	
141-1			CM42598-001	E Ring	x 4
141-2			CM42460-A02	Shaft	
141-3			CM42460-A03	Shaft	x 2
141-4		⚠	CM42468-001	Long Arm	
141-5			CM42460-A01	Shaft	
141-6			CM31297-001	EVF Holder (A)	
141-7			CM10324-A02	EVF Cover (B)	
142			CM42811-001	Light Guide	For diffusing the LED light
143			CM42463-C01	Indicator Film	
144			CM30564-001	Hole Plug	
146		⚠	CM10323-005	EVF Cover (T)	Top side
148			CM42465-003	Lock Knob	
149			CM42466-C01	Lock Spring	
150			C41474-2	Tap Screw	x 2 For fastening the EVF cover
156		⚠	CM31307-00A	Slide Cover Ass'y (with Lens)	
157		⚠	CM31212-001	Eye Cup	
161			CM42688-001	Spring	
162			CM42671-001	Top Insulator-F	
164			CM42704-001	Top insulator-R	
165			CM42715-001	CRT Rubber	
166			CM42659-001	CRT Shade	
167			WLS2600	Washer	
168			CM42717-001	EVF Insulator	
169			CM42665-001	Label Insulator	
170			CM31200-001	Shield Cover	
171			CM31201-00A	Shield Case	
172			CM42485-001	P. Amp. Insulator	
173			CEX40365-001	Switch	
174			CM42706-00A	Shield Insulator	
175			CM42691-00A	"	
176			CM42667-001	Blind Rubber	
177			CM42746-001	Earth Foil	
178			CM42746-001	"	
179			CM42771-001	Label	
180			A76382-A	Lug	
181			CM42607-003	Module Insulator	
182			CM42607-A01	Module Insulator	(x 7)
183			CM42780-001	Double Face	(x 2)

■ PRINTED CIRCUIT BOARD PARTS LIST
■ LISTE DES PIECES DES PLAQUETTES DE CIRCUITS IMPRIMES
■ TEILELISTE FÜR GEDRUCKTE LEITERPLATTEN

1. CA-1575B MOTHER BOARD
1. PLAQUETTE MERE CA-1575B
1. CA-1575B HAUPTLEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
R1120		CE40412-104WYA	CH V R	100kΩ H SAW
R1121		" -104WYA	"	" H PB } DY FOCUS
R1122		" -104WYA	"	" V SAW
R1123		" -104WYA	"	" V PB
R1124		" -104WYA	"	" H SAW PHASE SH COMP.
R1126		" -104XYA	"	" H SAW } H BL COMP.-Y
R1127		" -104XYA	"	" H PB
R1128		" -104XYA	"	" V SAW } V BL COMP.-Y
R1129		" -104XYA	"	" V PB
R1130		" -104XYA	"	" H SAW } H BL COMP.-R
R1131		" -104XYA	"	" H PB
R1132		" -104WYA	"	" H SAW } H BL COMP.-B
R1133		" -104WYA	"	" H PB
R1134		" -104WYA	"	" H SAW
R1135		" -104WYA	"	" H PB
R1136		" -104WYA	"	" V SAW } SH COMP.-R
R1137		" -104WYA	"	" V PB
R1138		" -104XYA	"	" H SAW
R1139		" -104XYA	"	" H PB
R1140		" -104XYA	"	" V SAW } SH COMP.-B
R1141		" -104XYA	"	" V PB
R1142		" -104XYA	"	" V SAW } V BL COMP.-R
R1143		" -104XYA	"	" V PB
R1144		" -104WYA	"	" V SAW } V BL COMP.-B
R1145		" -104XYA	"	" V PB
R1213		" -223XYA	"	22kΩ AUTO IRIS SET
R1215		" -471WYA	"	470Ω LIGHT BALANCE BIAS LIGHT
R1241		" -103XYA	"	" IN DOOR B SET } AW BAL.
R1242		" -103WYA	"	" OUT DOOR B SET } SET
R1243		" -103XYA	"	" IN DOOR R SET
R1244		" -103XYA	"	" OUT DOOR R SET
R1261		" -472XYA	"	4.7kΩ 5V ADJ.
R1305		A76225-205A	V R	2MΩ FOCUS
R1313		CE40624-105A	"	1MΩ TARGET
R1327		CE40412-681XYA	CH V R	680Ω H CENTER
R1331		" -471XYA	"	470Ω H LIN-3
R1332		" -103XYA	"	10kΩ H LIN-1
R1339		" -681WYA	"	680Ω H LIN-2
R1349		CE40685-224WYA	"	220kΩ V HEIGHT
R1355		CE40412-682XYA	"	6.8kΩ V CENTER
Resistor				
R1101		QRS148J-332YL	CH MG R	3.3kΩ 1/4W J
R1102		" -152YL	"	1.5kΩ " "
R1103		" -103YL	"	10kΩ " "
R1104		" -152YL	"	1.5kΩ " "
R1105		" -102YL	"	1kΩ " "
R1106		" -272YL	"	2.7kΩ " "
R1107		" -123YL	"	12kΩ " "
R1108		" -563YL	"	56kΩ " "
R1109		" -182YL	"	1.8kΩ " "

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
R1111		QRS148J-683YL	CH MG R	68kΩ	1/4W	J
R1112		" -105YL	"	1MΩ	"	"
R1113		" -222YL	"	2.2kΩ	"	"
R1114		" -471YL	"	470Ω	"	"
R1115		" -102YL	"	1kΩ	"	"
R1150		" -104YL	"	100kΩ	"	"
R1151		" -394YL	"	390kΩ	"	"
R1152		" -104YL	"	100kΩ	"	"
R1153		" -104YL	"	"	"	"
R1154		" -104YL	"	"	"	"
R1155		" -104YL	"	"	"	"
R1156		" -104YL	"	"	"	"
R1157		" -104YL	"	"	"	"
R1158		" -104YL	"	"	"	"
R1159		" -104YL	"	"	"	"
R1160		" -104YL	"	"	"	"
R1161		" -104YL	"	"	"	"
R1162		" -104YL	"	"	"	"
R1163		" -104YL	"	"	"	"
R1164		" -104YL	"	"	"	"
R1165		" -104YL	"	"	"	"
R1166		" -104YL	"	"	"	"
R1167		" -104YL	"	"	"	"
R1168		" -104YL	"	"	"	"
R1169		" -104YL	"	"	"	"
R1170		" -104YL	"	"	"	"
R1171		" -104YL	"	"	"	"
R1172		" -104YL	"	"	"	"
R1173		" -104YL	"	"	"	"
R1175		" -104YL	"	"	"	"
R1176		" -104YL	"	"	"	"
R1177		" -104YL	"	"	"	"
R1178		" -104YL	"	"	"	"
R1179		" -104YL	"	"	"	"
R1180		" -104YL	"	"	"	"
R1181		" -104YL	"	"	"	"
R1182		" -104YL	"	"	"	"
R1183		" -104YL	"	"	"	"
R1184		" -104YL	"	"	"	"
R1185		" -104YL	"	"	"	"
R1186		" -104YL	"	"	"	"
R1187		" -104YL	"	"	"	"
R1188		" -104YL	"	"	"	"
R1189		" -104YL	"	"	"	"
R1190		" -104YL	"	"	"	"
R1191		" -104YL	"	"	"	"
R1192		" -104YL	"	"	"	"
R1193		" -104YL	"	"	"	"
R1194		" -104YL	"	"	"	"
R1195		" -104YL	"	"	"	"
R1201		" -105YL	"	1MΩ	"	"
R1202		" -333YL	"	33kΩ	"	"
R1203		" -223YL	"	22kΩ	"	"
R1204		" -822YL	"	8.2kΩ	"	"
R1205		" -103YL	"	10kΩ	"	"
R1206		" -103YL	"	"	"	"

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
R1221		QRS148J-102YL	CH MG R	1kΩ	1/4W	J
R1231		" -102YL	"	"	"	"
R1233		" -153YL	"	15kΩ	"	"
R1247		" -181YL	"	180Ω	"	"
R1248		" -820YL	"	82Ω	"	"
R1251		" -150YL	"	15Ω	"	"
R1262		" -333YL	"	33kΩ	"	"
R1263		" -102YL	"	1kΩ	"	"
R1269		" -562YL	"	5.6kΩ	"	"
R1270		" -152YL	"	1.5kΩ	"	"
R1271		" -682YL	"	6.8kΩ	"	"
R1275		" -561YL	"	560Ω	"	"
R1276		" -104YL	"	100kΩ	"	"
R1277		QRS141F-1005	MG R	10MΩ	"	F
R1281		QRD161J-150Y	CR	15Ω	1/6W	J
R1283		" -104Y	"	100kΩ	"	"
R1300		QRD162J-105	C R	1MΩ	1/6W	"
R1301		QRS148J-473YL	CH MG R	47kΩ	1/4W	"
R1302		" -222YL	"	2.2kΩ	"	"
R1303		" -271YL	"	270Ω	"	"
R1304		" -474YL	"	470kΩ	"	"
R1307		" -683YL	"	68kΩ	"	"
R1308		" -562YL	"	5.6kΩ	"	"
R1310		" -122YL	"	1.2kΩ	"	"
R1311		" -154YL	"	150kΩ	"	"
R1312		" -154YL	"	"	"	"
R1314		" -103YL	"	10kΩ	"	"
R1315		" -222YL	"	2.2kΩ	"	"
R1316		" -123YL	"	12kΩ	"	"
R1317		" -333YL	"	33kΩ	"	"
R1319		" -392YL	"	3.9kΩ	"	"
R1321		" -154YL	"	150kΩ	"	"
R1322		" -682YL	"	6.8kΩ	"	"
R1323		" -104YL	"	100kΩ	"	"
R1324		" -473YL	"	47kΩ	"	"
R1325		" -102YL	"	1kΩ	"	"
R1326		" -6R8YL	"	6.8Ω	"	"
R1328		" -221YL	"	220Ω	"	"
R1329		" -101YL	"	100Ω	"	"
R1333		A75575-332	Thermistor	3.3kΩ		
R1334		QRS148J-821YL	CH MG R	820Ω	1/4W	J
R1335		" -103YL	"	10kΩ	"	"
R1336		" -103YL	"	"	"	"
R1337		" -182YL	"	1.8kΩ	"	"
R1338		" -122YL	"	1.2kΩ	"	"
R1341		" -151YL	"	150Ω	"	"
R1342		" -392YL	"	3.9kΩ	"	"
R1343		" -103YL	"	10kΩ	"	"
R1344		" -103YL	"	10kΩ	"	"
R1345		" -123YL	"	12kΩ	"	"
R1346		" -472YL	"	4.7kΩ	"	"
R1347		" -103YL	"	10kΩ	"	"
R1348		" -224YL	"	220kΩ	"	"
R1350		QRD161J-181	CR	180Ω	1/6W	"
R1351		QRS148J-222YL	CH MG R	2.2kΩ	1/4W	"
R1352		" -560YL	"	56Ω	"	"
R1353		" -122YL	"	1.2kΩ	"	"
R1354		" -471YL	"	470Ω	"	"
R1360		QRS148J-105YL	CH MG R	1MΩ	1/4W	J
R1361		" -122YL	"	1.2kΩ	"	"
Capacitor						
C1101		CE40713-475WM	CH Tan. E Cap.	4.7μF	10V	M
C1102		" -475WM	"	"	"	"

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
C1103		CE40713-475WM	CH Tan. E Cap.	4.7μF	10V	M
C1104		QCY81HK-472YLA	CH C Cap.	4700pF	50V	K
C1106		QCF81HZ-473YLA	"	0.047μF	"	Z
C1107		QCF81HZ-103YLA	CH C Cap.	0.01μF	50V	Z
C1108		QCS81HJ-101YLA	"	100pF	"	J
C1109		QCF81HZ-473YLA	"	0.047μF	"	Z
C1201		" -473YLA	"	"	"	"
C1202		" -103YLA	"	0.01μF	"	"
C1221		QER40JM-107M	E Cap.	100μF	6.3V	M
C1251		CE40036-475WM	CH Tan. E Cap.	4.7μF	35V	"
C1253		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
C1254		QCS81HJ-150YXV	"	15pF	"	J
C1261		CE40713-475XM	CH Tan. E Cap.	4.7μF	10V	M
C1262		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
C1263		QCY31HK-272AZ	"	2700pF	"	K
C1300	⚠	CJ49511-00A	HV C Cap.	0.01μF		
C1301		GETA1AM-477	E Cap.	470μF	10V	M
C1302		QCY81HK-473YLA	CH C Cap.	0.047μF	50V	K
C1303		QFP32DG-272S	PP Cap.	2700pF	200V	G
C1304		QET42AR-335	E Cap.	3.3μF	100V	R
C1305		" -105	"	1μF	"	"
C1306		QFM72DK-153M	M Cap.	0.015μF	200V	K
C1307		QCS81HJ-331YLA	CH C Cap.	330pF	50V	J
C1308		QCY81HK-103YLA	"	0.01μF	"	K
C1309		QEK41JM-105M	E Cap.	1μF	6.3V	M
C1310		QFM72DJ-222M	M Cap.	2200pF	200V	J
C1311		QET42AR-105	E Cap.	1μF	100V	R
C1312		QCS81HJ-221YLA	CH C Cap.	220pF	50V	J
C1313		QEE51CK-226B	Tan. Cap.	22μF	16V	K
C1314		QET41CR-106	E Cap.	10μF	"	R
C1315		QEE41VK-105M	Tan. Cap.	1μF	35V	K
C1316		QCY81HK-102YLA	CH C Cap.	1000pF	50V	"
C1317		QET41CR-106	E Cap.	10μF	16V	R
C1318		QFH52AJ-104M	MM Cap.	0.1μF	100V	J
C1319		QER40JM-107M	E Cap.	100μF	6.3V	M
C1320		QCZ0210-473U	MP Cap.	0.047μF		
C1321		QEK40JM-107M	E Cap.	100μF	6.3V	M
C1322		QCS11HJ-470	C Cap.	47pF	50V	J
C1323		QCS81HJ-470YLA	CH C Cap.	"	"	"
C1324		" -470YLA	"	"	"	"
C1325		" -5R0YLA	"	5pF	"	"
Transformer						
T1301	⚠	CE40665-00A	HV Block			
Coil						
L1301		A49468-201U	Peaking Coil	200μH		
L1302		" -562	"	5.6mH		
L1303		" -562	"	"		
L1304		CE40620-00A	Width Coil			
Diode						
D1231		MA151WA	Chip Diode			
D1241		MA151WK	"			
D1259		RD5.6E (B2)	Zener Diode			

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
D1261		MA3047-L	Chip Diode	
D1262		MA4120(M, H)	Zener Diode	
D1263		"	"	
D1264		"	"	
D1266		MA4120(M, H)	Zener Diode	
D1267		"	"	
D1301		MA151A	Chip Diode	
D1302		MA151K	"	
D1303		MA157	"	
D1304		IS2473H	Si, Diode	
Transistor				
Q1101		2SC2778 (B,C)	Chip Transistor	
Q1102		"	"	
Q1103		"	"	
Q1104		"	"	
Q1105		2SB709 (P-R)	"	
Q1201		2SC2778 (B,C)	"	
Q1231		2SB709 (P-R)	"	
Q1261		2SB970 (Q-S)	"	
Q1301		2SD601 (Q,R)	"	
Q1302		2SD781	Si Transistor	
Q1303		2SD601A (Q,R)	Chip Transistor	
Q1304		2SB792 (Q-T)	"	
Q1305		"	"	
Q1306		2SB792 (Q-T)	"	
Q1307		2SB709 (P-R)	"	
Q1308		2SB792 (Q-T)	"	
Q1309		2SD601 (Q,R)	"	
C1311		2SB709 (Q-R)	"	
Q1312		2SD601 (Q,R)	"	
I C				
IC1101		UPC4741G	I C	
IC1102		"	"	
IC1103		"	"	
IC1201		UPD4013BG	"	
IC1202		TC4013BF	"	
IC1261		UPC4558G	Mini Flat IC	
IC1301		NJM3414D	I C	
Miscellaneous				
		CH40324-008	EVF Con. Base	
SW1201		CEX40366-001	Switch	
SW1231		CEX40306-002	Push Switch	
SW1241		CEX40367-001	Slide Switch	
SW1261		CEX40306-002	Push Switch	
		CE40677-001	1/2 T Socket	
SW1301		CEX40306-002	Push Switch	
SW1302		" -002	"	
CP1251		ICP-F25	IC Protecter	
		CM42607-A01	Module Insulator	x 7
CP1301		ICP-F20	IC Protector	
CP1302		"	"	

2. CA-A003A AUDIO BOARD
2. PLAQUETTE AUDIO CA-A003A
2. CA-A003A AUDIO-LEITERPLATTE

SYMBOL NO. / No. de symbole / SYMBOL-NR.	⚠	PART NO. / No. de la pièce / TEILE-NR.	PART NAME / Désignation de la pièce / TEILE-NAME	REMARKS / Remarques / BEMERKUNGEN		
Resistor						
RA002		QRSA08J-181YL	CH MG R	180Ω	1/10W	J
RA003		" -683YL	"	68kΩ	"	"
RA004		" -102YL	"	1kΩ	"	"
RA005		" -102YL	"	"	"	"
RA007		" -222YL	"	2.2kΩ	"	"
RA008		QRS148J-472YL	"	4.7kΩ	1/4W	"
RA012		QRSA08J-181YL	"	180Ω	1/10W	"
RA013		" -683YL	"	68kΩ	"	"
RA014		" -102YL	"	1kΩ	"	"
RA015		" -102YL	"	"	"	"
RA017		" -222YL	"	2.2kΩ	"	"
RA018		QRS148J-472YL	"	4.7kΩ	1/4W	"
RA031		QRSA08J-224YL	"	220kΩ	1/10W	"
RA032		" -124YL	"	120kΩ	"	"
Capacitor						
CA002		QEE41CK-106B	Tan. Cap.	10μF	16V	K
CA003		QCF81HZ-473YLS	CH C Cap.	0.047μF	50V	Z
CA004		QCY81HK-332YLS	"	3300pF	"	K
CA005		CE40622-106YM	CH AL E Cap.	10μF	16V	M
CA006		CE40621-226YM	CH AL E Cap.	22μF	6.3V	"
CA007		QER40JM-107M	E Cap.	100μF	"	"
CA008		" -107M	"	"	"	"
CA009		QCY81HK-473YLA	CH C Cap.	0.047μF	50V	K
CA012		QEE41CK-106B	Tan. Cap.	10μF	16V	"
CA013		QCF81HZ-473YLS	CH C Cap.	0.047μF	50V	Z
CA014		QCY81HK-332YLS	"	3300pF	"	K
CA015		CE40622-106YM	CH AL E Cap.	10μF	16V	M
CA016		CE40036-105XM	"	1μF	35V	"
CA017		QER40JM-226M	E Cap.	22μF	6.3V	"
Diode						
DA001		MA151WA	Chip Diode			
DA002		MA157	"			
Transistor						
QA001		2SC2778 (B,C)	Chip Transistor			
QA011		"	"			
I C						
ICA001		M51545P	I C	AUDIO AMP.		

3. CA-B001A PREPROCESS BOARD
3. PLAQUETTE DE PRETRAITEMENT CA-B001A
3. CA-B001A VORVERARB.-LEITERPLATTE

SYMBOL NO. / No. de symbole / SYMBOL-NR.	⚠	PART NO. / No. de la pièce / TEILE-NR.	PART NAME / Désignation de la pièce / TEILE-NAME	REMARKS / Remarques / BEMERKUNGEN		
Variable Resistor						
RB012		CE40684-223YA	CH V R	22kΩ	Y GAIN	
Resistor						
RB001		QRS148J-102YL	CH MG R	1kΩ	1/4W	J
RB002		" -102YL	"	"	"	"
RB003		" -272YL	"	2.7kΩ	"	"
RB004		" -184YL	"	180kΩ	"	"
RB005		" -104YL	"	100kΩ	"	"
RB006		" -821YL	"	820Ω	"	"
RB007		" -122YL	"	1.2kΩ	"	"
RB008		" -222YL	"	2.2kΩ	"	"
RB009		" -821YL	"	820Ω	"	"
RB010		" -223YL	"	22kΩ	"	"
RB014		" -332YL	"	3.3kΩ	"	"
RB015		" -682YL	"	6.8kΩ	"	"
3017		" -100YL	"	10Ω	"	"
Capacitor						
CB001		CE40622-106YM	CH AL E Cap.	10μF	16V	M
CB002		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CB003		CE40622-106YM	CH AL E Cap.	10μF	16V	M
CB004		CE40036-105XM	"	1μF	35V	"
CB005		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CB006		QCY81HK-473YLA	"	"	"	K
CB007		QCF81HZ-473YLA	"	"	"	Z
CB008		QCY81HK-473YLA	"	"	"	K
CB009		QCF81HZ-473YLA	"	"	"	Z
CB010		" -473YLA	"	"	"	"
CB011		" -473YLA	"	"	"	"
CB012		CE40713-475WM	CH Tan. E Cap.	4.7μF	10V	M
CB013		" -475WM	"	"	"	"
CB014		QCS81HJ-100YLA	CH C Cap.	10pF	50V	J
CB015		QCF81HZ-473YLA	"	0.047μF	"	Z
Transformer						
BQ01		CE40723-00A	4.1MHz Trap Transf.			
Transistor						
QB001		2SC2778 (B, C)	Chip Transistor			
QB002		"	"			
QB003		2SA1022 (B, C)	"			
QB004		2SC2778(B,C)	"			
QB005		2SB709(P-R)	"			
I C						
ICB001		M51261P	I C	PRE-PROCESS		
Miscellaneous						
DLB001		CE40659-00A	Delay Line			
		CM42607-003	Module Insulator			

4. CA-C001A CARRIER MATRIX BOARD
4. PLAQUETTE DE MATRICE DE L'ONDE PORTEUSE CA-C001A
4. CA-C001A TRÄGERMATRIX-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Variable Resistor						
RC001		CE40684-222YA	CH V R	2.2kΩ	PHASE SET VR	
RC012		" -222YA	"	"	GROUP DELAY	
RC024		" -222YA	"	"	DC SET	
Resistor						
RC002		QRSA08J-471YL	CH MG R	470Ω	1/10W	J
RC003		" -182YL	"	1.8kΩ	"	"
RC004		" -562YL	"	5.6kΩ	"	"
RC005		" -121YL	"	120Ω	"	"
RC006		QRS148J-182YL	"	1.8kΩ	1/4W	"
RC007		QRSA08J-821YL	"	820Ω	1/10W	"
RC008		QRS148J-102YL	"	1kΩ	1/4W	"
RC009		" -122YL	"	1.2kΩ	"	"
RC010		" -183YL	"	18kΩ	"	"
RC011		QRSA08J-471YL	"	470Ω	1/10W	"
RC013		QRS148J-271YL	"	270Ω	1/4W	"
RC014		QRSA08J-102YL	"	1kΩ	1/10W	"
RC015		QRS148J-102YL	"	"	1/4W	"
RC016		" -680YL	"	68Ω	"	"
RC017		ERT-D2FFK251S	Thermistor	250Ω		
RC018		QRS148J-152YL	CH MG R	1.5kΩ	1/4W	J
RC019		" -331YL	"	330Ω	"	"
RC021		" -821YL	"	820Ω	"	"
RC022		" -821YL	"	"	"	"
RC023		" -562YL	"	5.6kΩ	"	"
RC025		" -392YL	"	3.9kΩ	"	"
RC026		" -152YL	"	1.5kΩ	"	"
RC027		" -682YL	"	6.8kΩ	"	"
RC028		" -472YL	"	4.7kΩ	"	"
RC032		ERD-D2FFK251S	Thermistor	250Ω		
RC033		QRSA08J-221YL	CH MG R	220Ω	1/10W	J
Capacitor						
CC001		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CC002		QCS81HJ-180YLS	"	18pF	"	J
CC004		QCF81HZ-473YLA	"	0.047μF	"	Z
CC005		QCS81HJ-560YLA	"	56pF	"	J
CC006		" -221YLA	"	220pF	"	"
CC008		QCF81HZ-473YLS	"	0.047μF	"	Z
CC009		" -103YLA	"	0.01μF	"	"
CC010		CE40713-475WM	CH Tan. E Cap.	4.7μF	10V	M
CC011		QCF81HZ-473YLS	CH C Cap.	0.047μF	50V	Z
CC014		QCF81HZ-473YLA	"	0.047μF	"	Z
CC015		" -473YLA	"	"	"	"
CC016		QCS81HJ-101YLS	"	100pF	"	J
CC018		" -150YXV	"	15pF	"	"
Transformer						
TC001		CE40655-B0A	Phase Transf.	PHASE SET TRANSF.		
TC002		CE40653-00A	4.1 MHz BP Transf.			
TC003		*CE40654-00A*	*8.2 MHz Trap Transf.*			

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
Diode				
DC001		KV-1236XY	Vari Cap Diode	
Transistor				
QC001		2SC2778 (B, C)	Chip Transistor	
QC002		"	"	
QC003		"	"	
QC004		"	"	
QC005		2SA1022 (B, C)	"	
QC006		2SC2778 (B, C)	"	
QC007		"	"	
QC008		"	"	
QC009		"	"	
I C				
ICC001		SN76670 (N)	I C	AMP, LIMITER & MULTI.

5. CA-D001A DETECTOR BOARD
5. PLAQUETTE DE DETECTEUR CA-D001A
5. CA-D001A DETEKTOR-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Variable Resistor						
RD024		CE40684-223YA	CH V R	22kΩ	R GAIN	
RD025		" -223YA	"	"	B GAIN	
Resistor						
RD001		QRS148J-103YL	CH MG R	10kΩ	1/4W	J
RD002		" -471YL	"	470Ω	"	"
RD004		" -332YL	"	3.3kΩ	"	"
RD005		" -103YL	"	10kΩ	"	"
RD006		" -222YL	"	2.2kΩ	"	"
RD007		" -822YL	"	8.2kΩ	"	"
RD009		" -332YL	"	3.3kΩ	"	"
RD010		" -332YL	"	"	"	"
RD011		" -152YL	"	1.5kΩ	"	"
RD012		" -152YL	"	"	"	"
RD013		" -332YL	"	3.3kΩ	"	"
RD014		" -332YL	"	"	"	"
RD015		" -332YL	"	"	"	"
RD016		" -332YL	"	"	"	"
RD017		" -822YL	"	8.2kΩ	"	"
RD018		" -222YL	"	2.2kΩ	"	"
RD019		" -122YL	"	1.2kΩ	"	"
RD020		" -821YL	"	820Ω	"	"
RD022		" -332YL	"	3.3kΩ	"	"
RD023		" -103YL	"	10kΩ	"	"
RD026		" -471YL	"	470Ω	"	"
RD027		" -562YL	"	5.6kΩ	"	"
RD028		" -332YL	"	3.3kΩ	"	"
RD029		" -223YL	"	22kΩ	"	"
RD030		" -471YL	"	470Ω	"	"
RD031		" -103YL	"	10kΩ	"	"
RD032		" -103YL	"	"	"	"
RD033		" -332YL	"	3.3kΩ	"	"
RD034		" -100YL	"	10Ω	"	"
Capacitor						
CD001		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CD002		QCS81HJ-390YLA	"	39pF	"	J
CD003		QCF81HZ-103YLA	"	0.01μF	"	Z
CD004		QCS81HJ-101YLA	"	100pF	"	J
CD005		QCF81HZ-473YLA	"	0.047μF	"	Z
CD006		" -473YLA	"	"	"	"
CD007		QCS81HJ-5R0YLA	"	5pF	"	J
CD008		" -5R0YLA	"	"	"	"
CD009		" -5R0YLA	"	"	"	"
CD010		" -5R0YLA	"	"	"	"
CD011		QCF81HZ-473YLA	"	0.047μF	"	Z
CD012		" -473YLA	"	"	"	"
CD013		" -473YLA	"	"	"	"
CD014		" -473YLA	"	"	"	"
CD015		QCS81HJ-390YLA	"	39pF	"	J
CD016		QCF81HZ-103YLA	"	0.01μF	"	Z
CD017		QCS81HJ-820YLA	"	82pF	"	J
CD018		QEPA1CM-106M	BP E Cap.	10μF	16V	M
CD019		" -106M	"	"	"	"
CD020		QCS81HJ-181YLA	CH C Cap.	180pF	50V	J
CD021		" -181YLA	"	"	"	"
CD022		" -180YLA	"	18pF	"	"

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
CD023		QCS81HJ-180YLA	CH C Cap.	18pF	50V	J
CD024		QCY81HK-103YLA	"	0.01μF	"	K
CD025		" -103YLA	"	"	"	"
Coil						
LD001		CE40344-330YL	Chip Inductor	33μH		
LD002		" -330YL	"	"		
LD003		" -820YL	"	82μH		
LD004		" -820YL	"	"		
Transistor						
QD001		2SC2778 (B,C)	Chip Transistor			
QD002		"	"			
QD003		2SB709 (P-R)	"			
I C						
ICD001		HA11748B	I C	DETECTOR		

6. CA-E004A BLACK SET/AUTO WHITE BOARD
6. PLAQUETTE DE REGLAGE DU NOIR/BLANC AUTOMATIQUE CA-E004A
6. CA-E004A SCHWARZ/WEISSABGLEICH-LEITERPLATTE

SYMBOL NO. / No. de symbole / SYMBOL-NR.	⚠	PART NO. / No. de la pièce / TEILE-NR.	PART NAME / Désignation de la pièce / TEILE-NAME	REMARKS / Remarques / BEMERKUNGEN		
Variable Resistor						
RE001		CE40684-223YA	CH V R	22kΩ	A/W B OFFSET	
RE002		" -223YA	"	"	A/W R OFFSET	
RE003		" -223YA	"	"	B BLK SET	
RE004		" -223YA	"	"	R BLK SET	
RE005		" -105YA	"	1MΩ	A/W B GAIN	
RE006		" -105YA	"	"	A/W R GAIN	
RE007		" -223YA	"	22kΩ	YL BLK SET	
RE008		" -683YA	"	68kΩ	YL-R	
Resistor						
RE009		QRSA08J-122YL	CH MG R	1.2kΩ	1/10W	J
RE010		QRS148J-122YL	"	"	1/4W	"
RE011		QRSA08J-472YL	"	4.7kΩ	1/10W	"
RE012		" -562YL	"	5.6kΩ	"	"
RE013		QRS148J-183YL	"	18kΩ	1/4W	"
RE014		" -333YL	"	33kΩ	"	"
RE015		QRSA08J-471YL	"	470Ω	1/10W	"
RE016		" -272YL	"	2.7kΩ	"	"
RE017		" -182YL	"	1.8kΩ	"	"
RE018		" -222YL	"	2.2kΩ	"	"
RE021		QRS148J-472YL	"	4.7kΩ	1/4W	"
RE022		" -472YL	"	"	"	"
RE024		QRS148J-472YL	CH MG R	"	1/4W	"
RE025		QRSA08J-154YL	"	150kΩ	1/10W	"
RE026		" -154YL	"	"	"	"
RE033		" -223YL	"	22kΩ	"	"
RE034		" -104YL	"	100kΩ	"	"
RE036		QRS148J-562YL	"	5.6kΩ	1/4W	"
RE037		QRSA08J-154YL	"	150kΩ	1/10W	"
RE038		QRS148J-561YL	CH MG R	560Ω	1/4W	"
RE039		QRSA08J-154YL	"	150kΩ	1/10W	"
RE040		QRSA08J-333YL	"	33kΩ	"	"
RE044		QRD181J-122A	CR	1.2kΩ	1/8W	J
RE045		A75575-332	Thermistor	3.3kΩ		
Capacitor						
CE001		QCT81CH-680YL	CH C Cap.	68pF	50V	J
CE002		" -181YLS	"	180pF	"	"
CE003		" -680YL	"	68pF	"	"
CE004		QCF81HZ-473YLA	"	0.047μF	"	Z
CE005		" -473YLA	"	"	"	"
CE006		" -473YLA	"	"	"	"
CE007		" -473YLS	"	"	"	"
CE008		CE40034-685WM	CH Tan. E Cap.	6.8μF	6.3V	M
CE009		CE40622-106YM	CH AL E Cap.	10μF	16V	"
CE010		" -106YM	"	"	"	"
CE011		CE40035-225XM	"	2.2μF	16V	"
CE012		QCS81HJ-471YLS	CH C Cap.	470pF	50V	J
CE013		" -471YLS	"	"	"	"
CE014		CE40676-474YM	CH AL BP Cap.	0.47μF	"	M
CE015		" -474YM	"	"	"	"
CD016		QCS81HJ-120YLS	CH C Cap.	12pF	"	J
CE017		QCF81HZ-223YLS	CH C Cap.	0.022μF	"	Z
Coil						
LE001		CE40344-331YL	Chip Inductor	330μH		
LE002		" -331YL	"	"		

SYMBOL NO. / No. de symbole / SYMBOL-NR.	⚠	PART NO. / No. de la pièce / TEILE-NR.	PART NAME / Désignation de la pièce / TEILE-NAME	REMARKS / Remarques / BEMERKUNGEN
Diode				
DE001		IS002	Log Diode	
DE002		"	"	
DE003		MA151A	Chip Diode	
Transistor				
QE001		2SB709 (Q-R)	Chip Transistor	
I C				
ICE001		M51263P	IC	BLACK SET
ICE002		NJM082M	"	FET OP. AMP
ICE003		UPC4558G	Mini Flat IC	OP. AMP

7. CA-F001A COLOR GAMMA BOARD
7. PLAQUETTE DE GAMMA COULEUR CA-F001A
7. CA-F001A FARBGAMMA-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART-NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Variable Resistor						
RF007		CE40684-223YA	CH V R	22kΩ	G IN GAIN	
RF014		" -102YA	"	1kΩ	R-γ	
RF015		" -223YA	"	22kΩ	R GAIN	
RF016		" -102YA	"	1kΩ	B-γ	
RF018		" -223YA	"	22kΩ	B GAIN	
Resistor						
RF001		QRSA08J-223YL	CH MG R	22kΩ	1/10W	J
RF002		QRS148J-393YL	"	39kΩ	1/4W	"
RF003		QRSA08J-333YL	"	33kΩ	1/10W	"
RF004		" -333YL	"	"	"	"
RF008		QRS148J-223YL	"	22kΩ	1/4W	"
RF009		QRSA08J-152YL	"	1.5kΩ	1/10W	"
RF010		" -561YL	"	560Ω	"	"
RF019		QRS148J-683YL	"	68kΩ	1/4W	"
RF020		" -273YL	"	27kΩ	"	"
RF021		" -394YL	"	390kΩ	"	"
RF022		" -822YL	"	8.2kΩ	"	"
RF023		" -682YL	"	6.8kΩ	"	"
RF024		" -182YL	"	1.8kΩ	"	"
RF025		" -332YL	"	3.3kΩ	"	"
RF026		" -472YL	"	4.7kΩ	"	"
RF027		" -182YL	"	1.8kΩ	"	"
RF028		QRSA08J-273YL	"	27kΩ	1/10W	"
RF029		" -104YL	"	100kΩ	1/10W	"
RF030		" -822YL	"	8.2kΩ	"	"
RF031		" -472YL	"	4.7kΩ	"	"
RF032		QRSA08J-182YL	"	1.8kΩ	1/10W	"
RF033		QRS148J-272YL	"	2.7kΩ	1/4W	"
RF034		" -182YL	"	1.8kΩ	"	"
RF037		" -223YL	"	22kΩ	"	"
RF038		" -183YL	"	18kΩ	"	"
Capacitor						
CF001		QCF81HZ-473YLS	CH C Cap.	0.047μF	50V	Z
CF002		" -473YLA	"	"	"	"
CF003		CE40036-105XM	CH Tan. E Cap.	1μF	35V	M
CF004		" -105XM	"	"	"	"
CF005		" -105XM	"	"	"	"
CF006		CE40621-226YM	CH AL E Cap.	22μF	6.3V	"
Transistor						
QF001		2SC2778 (B,C)	Chip Transistor			
QF002		"	"			
QF003		"	"			
QF004		"	"			
I C						
ICF001		M51264P	I C			

8. CA-G501A CDP BOARD
8. PLAQUETTE CDP CA-G501A
8. CA-G501A CDP-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Variable Resistor						
RG002		CE40684-103YA	CH V R	10kΩ	R-Y GAIN	
RG014		" -102YA	"	1kΩ	R ADD LEVEL	
RG022		" -103YA	"	10kΩ	Y-B GAIN	
RG031		" -102YA	"	1kΩ	B ADD LEVEL	
Resistor						
RG001		QRS148J-103YL	CH MG R	10kΩ	1/4W	J
RG003		" 332YL	"	3.3kΩ	"	"
RG004		" -182YL	"	1.8kΩ	"	"
RG005		" -472YL	"	4.7kΩ	"	"
RG006		" -822YL	"	8.2kΩ	"	"
RG007		" -223YL	"	22kΩ	"	"
RG009		QRSA08J-183YL	"	18kΩ	1/10W	"
RG010		QRS148J-103YL	"	10kΩ	1/4W	"
RG011		QRSA08J-223YL	"	22kΩ	1/10W	"
RG012		" -223YL	"	"	"	"
RG013		QRS148J-102YL	"	1kΩ	1/4W	"
RG015		QRSA08J-821YL	"	820Ω	1/10W	"
RG020		QRS148J-562YL	"	5.6kΩ	1/4W	"
RG021		" -562YL	"	"	"	"
RG023		" -332YL	"	3.3kΩ	"	"
RG024		" -182YL	"	1.8kΩ	"	"
RG025		" -472YL	"	4.7kΩ	"	"
RG026		" -822YL	"	8.2kΩ	"	"
RG027		" -223YL	"	22kΩ	"	"
RG029		" -102YL	"	1kΩ	"	"
RG032		QRSA08J-821YL	"	820Ω	1/10W	"
Capacitor						
CG001		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CG002		" -473YLA	"	"	"	"
CG003		" -473YLA	"	"	"	"
CG007		QCY81HK-102YLA	"	1000pF	"	K
CG008		QCF81HZ-103YLS	"	0.01μF	"	Z
CG009		" -103YLS	"	"	"	"
CG010		" -473YLA	"	0.047μF	"	"
CG011		QCS81HJ-151YLA	"	150pF	"	J
CG012		" -151YLA	"	"	"	"
CG013		CE40623-105YM	CH AL E Cap.	1μF	"	M
CG015		CE40036-105XM	CH Tan. E Cap.	"	35V	M
CG016		CE40622-106YM	CH AL E Cap.	10μF	16V	"
CG020		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CG023		" -473YLA	"	"	"	"
CG024		QCY81HK-102YLA	"	1000pF	"	K
CG025		QCS81HJ-151YLA	"	150pF	"	J
CG026		" -151YLA	"	"	"	"
CG027		CE40623-105YM	CH AL E Cap.	1μF	50V	M
CG029		CE40036-105XM	CH Tan. E Cap.	1μF	35V	M
CG031		CE40622-106YM	CH AL E Cap.	10μF	16V	"

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
Coil				
LG001		CE40344-331YL	Chip Inductor	330μH
LG002		" -331YL	"	"
Diode				
DG001		MA151A	Chip Diode	
Transistor				
QG001		2SC2778 (B,C)	Chip Transistor	
QG002		"	"	
QG003		"	"	
QG004		"	"	
I C				
ICG001		MN8037S	I C	1H DELAY (CCD)
ICG002		"	"	"
ICG003		BA7020F	"	

9. CA-H501A AGC BOARD
9. PLAQUETTE CAG CA-H501A
9. CA-H501A AVR-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Variable Resistor						
RH011		CE40684-223YA	CH VR	22kΩ	BURST LEVEL (R-Y)	
RH012		" -223YA	"	22kΩ	BURST LEVEL (Y-B)	
RH026		" -103YA	"	10kΩ	Y KNEE	
RH043		" -223YA	"	22kΩ	CHROMA LIMITER	
Resistor						
RH001		QRS148J-821YL	CH MG R	820Ω	1/4W	J
RH002		" -152YL	"	1.5kΩ	"	"
RH003		" -182YL	"	1.8kΩ	"	"
RH004		QRSA08J-223YL	"	22kΩ	1/10W	"
RH005		" -223YL	"	"	"	"
RH006		QRS148J-473YL	"	47kΩ	1/4W	"
RH007		QRSA08J-684YL	"	680kΩ	1/10W	"
RH008		" -474YL	"	470kΩ	"	"
RH009		" -564YL	"	560kΩ	1/10W	"
RH021		QRS148J-182YL	"	1.8kΩ	1/4W	"
RH022		" -392YL	"	3.9kΩ	"	"
RH023		QRD181J-104A	CR	100kΩ	1/8W	"
RH025		QRS148J-103YL	CH MG R	10kΩ	1/4W	"
RH027		QRSA08J-122YL	"	1.2kΩ	1/10W	"
RH028		QRS148J-561YL	"	560Ω	1/4W	"
RH029		QRSA08J-471YL	"	470Ω	1/10W	"
RH031		QRS148J-103YL	"	10kΩ	1/4W	"
RH032		" -103YL	"	"	"	"
RH033		" -103YL	"	"	"	"
RH034		" -333YL	"	33kΩ	"	"
RH035		QRSA08J-103YL	"	10kΩ	1/10W	"
RH036		" -103YL	"	"	"	"
RH041		QRS148J-822YL	"	8.2kΩ	1/4W	"
RH042		" -103YL	"	10kΩ	"	"
RH044		QRSA08J-332YL	"	3.3kΩ	1/10W	"
RH045		QRS148J-103YL	"	10kΩ	1/4W	"
RH051		QRSA08J-101YL	"	100Ω	1/10W	"
Capacitor						
CH003		QCF81HZ-473YLS	CH C Cap.	0.047μF	50V	Z
CH004		CE40622-106YM	CH AL E Cap.	10μF	16V	M
CH005		QCS81HJ-151YLA	CH C Cap.	150pF	50V	J
CH006		" -181YLS	"	180pF	"	"
CH007		CE40622-106YM	CH AL E Cap.	10μF	16V	M
CH008		" -106YM	"	"	"	"
CH009		CE40623-474YM	"	0.47μF	50V	"
CH011		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CH013		" -473YLS	"	"	"	M
CH014		CE40034-685WM	CH Tan. E Cap.	6.8μF	6.3V	"
CH016		CE40622-106YM	CH AL E Cap.	10μF	16V	M
CH017		QCS81HJ-150YLS	CH C Cap	15pF	50V	J
Coil						
LH001		CE40344-121YL	Chip Inductor	120μH		

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
Diode				
DH001		MA151A	Chip Diode	
DH003		IS2473H	Si Diode	
Transistor				
QH001		2SC2778 (B,C)	Chip Transistor	
QH002		2SB709 (P-R)	"	
QH003		2SC2778 (B,C)	"	
QH004		"	"	
QH005		"	"	
QH008		"	"	
QH009		"	"	
I C				
ICH001		M51262P	I C	AGC
Miscelleneous				
DLH001		CE40657-80A	Delay Line	

10. CA-J503A ENCODER BOARD
10. PLAQUETTE DE CODEUR CA-J503A
10. CA-J503A FARBCODER-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
Variable Resistor				
RJ004		CE40684-222YA	CH V R	2.2kΩ Y SET UP
RJ006		" -103YA	"	10kΩ R-Y CARRIER BAL.
RJ008		" -103YA	"	" Y-B CARRIER BAL.
RJ019		" -332YA	"	3.3kΩ SC PHASE
Resistor				
RJ001		QRS148J-102YL	CH MG R	1kΩ 1/4W J
RJ002		" -102YL	"	" " "
RJ003		" -222YL	"	2.2kΩ " "
RJ005		" -472YL	"	4.7kΩ " "
RJ007		" -472YL	"	" " "
RJ009		" -472YL	"	" " "
RJ010		" -123YL	"	12kΩ " "
RJ012		" -153YL	"	15kΩ " "
RJ013		" -392YL	"	3.9kΩ " "
RJ014		" -153YL	"	15kΩ " "
RJ015		" -222YL	"	2.2kΩ " "
RJ016		" -122YL	"	1.2kΩ " "
RJ017		" -153YL	"	15kΩ " "
RJ018		" -153YL	"	" " "
RJ020		" -222YL	"	2.2kΩ " "
RJ021		" -183YL	"	18kΩ " "
RJ022		" -103YL	"	10kΩ " "
RJ023		" -152YL	"	1.5kΩ " "
RJ024		" -102YL	"	1.2kΩ " "
Capacitor				
CJ001		QCY81HK-473YLA	CH C Cap.	0.047μF 50V K
CJ002		" -473YLA	"	" " "
CJ003		" -473YLA	"	" " "
CJ004		QCS81HJ-270YLA	"	27pF " J
CJ005		QCF81HZ-473YLA	"	0.047μF " Z
CJ006		QCS81HJ-270YLA	"	27pF " J
CJ007		QCF81HZ-473YLA	"	0.047μF " Z
CJ008		QCS81HJ-390YLA	"	39pF " J
CJ009		CE40622-106YM	CH AL E Cap.	10μF 16V M
CJ010		QCF81HZ-473YLA	CH C Cap.	0.047μF 50V Z
CJ012		" -473YLA	"	" " "
CJ013		QCS81HJ-180YLA	"	18pF " J
CJ014		QCY81HK-473YLA	"	0.047μF " K
CJ015		CE40622-106YM	CH AL E Cap.	10μF 16V M
CJ016		QCF81HZ-473YLA	CH C Cap.	0.047μF 50V Z
CJ017		QCS81HJ-270YLA	"	27pF " J
CJ018		" -270YLA	"	" " "
Coil				
LJ001		CE40344-680YL	Chip Inductor	68μH
Diode				
DJ001		MA151A	Chip Diode	
DJ002		MA157	"	
DJ003		IS2473H	Si. Diode	
Transistor				
QJ001		2SC2778 (B,C)	Chip Transistor	
QJ002		2SB709 (P-R)	"	

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
QJ003 QJ004		2SC2778 (B, C) 〃	Chip Transistor 〃	
I C ICJ001		HA11720MP	I C	ENCODER

11. CA-K501A SSG BOARD
11. PLAQUETTE SSG CA-K501A
11. CA-K501A TAKTGEBER-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Resistor						
RK001		QRSA08J-562YL	CH MG R	5.6kΩ	1/10W	J
RK002		〃 -222YL	〃	2.2kΩ	〃	〃
RK003		〃 -472YL	〃	4.7kΩ	〃	〃
RK004		QRS148J-104YL	〃	100kΩ	1/4W	〃
RK005		QRSA08J-684YL	〃	680kΩ	1/10W	〃
RK006		〃 -103YL	〃	10kΩ	〃	〃
RK007		〃 -103YL	〃	〃	〃	〃
RK008		〃 -472YL	〃	4.7kΩ	〃	〃
RK009		〃 -272YL	〃	2.7kΩ	〃	〃
RK010		〃 -273YL	〃	27kΩ	〃	〃
RK011		〃 -272YL	〃	2.7kΩ	〃	〃
RK012		〃 -273YL	〃	27kΩ	〃	〃
RK013		〃 -684YL	〃	680kΩ	〃	〃
RK014		〃 -339YL	〃	390kΩ	〃	〃
Capacitor						
CK001		CE40622-106YM	CH AL BP Cap.	10μF	16V	M
CK002		〃 -106YM	〃	〃	〃	〃
CK003		QCS81HJ-101YLS	CH C Cap.	100pF	50V	J
CK005		QCF81HZ-223YLS	〃	0.022μF	〃	Z
CK006		QCT81CH-390YLS	〃	39pF	〃	J
CK007		CE40676-474YM	CH AL E Cap.	0.47μF	〃	M
CK008		QCT81CH-100YLS	CH C Cap.	10pF	〃	J
CK009		〃 -100YLS	〃	〃	〃	〃
CK010		〃 -100YLS	〃	〃	〃	〃
CK011		QAT3110-300A	Trimmer Cap.	30pF		
CK012		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
CK013		QCS81HJ-101YLS	〃	100pF	〃	J
CK014		〃 -331YLS	〃	330pF	〃	〃
CK015		〃 -101YLS	〃	100pF	〃	〃
CK016		〃 -270YLS	〃	27pF	〃	〃
CK017		〃 -101YLS	〃	100pF	〃	〃
CK018		〃 -331YLS	〃	330pF	〃	〃
CK019		〃 -101YLS	〃	100pF	〃	〃
CK020		〃 -270YLS	〃	27pF	〃	〃
CK021		〃 -101YLS	〃	100pF	〃	〃
CK022		QCF81HZ-473YLA	〃	0.047μF	〃	Z
CK023		〃 -103YLS	〃	0.01μF	〃	〃
CK024		QCY81HK-473YLS	〃	0.047μF	〃	K
Transformer						
TK001		CE40658-00A	OSC Transf.	fH OSC		
Coil						
LK001		CE40344-101YL	Chip Inductor	100μH		
Diode						
DK001		1SV68	Vari Cap Diode			
Transistor						
QK001		2SC2778 (B,C)	Chip Transistor			

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièce TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
I C ICK001		HD61907	IC	SSG
Miscellaneous				
		CM42423-001	SSG Shield (B)	
		CM42424-001	SSG Shield (T)	
		CM42497-00A	Insulator	
XK001		CE40770-00A	17MHz Crystal	
	⚠	CM42585-A01	SSG Insulator (B)	

12. CA-L504A VTR TRIG. & BATT ALARM
12. PLAQUETTE DE DECLENCHEUR VTR & ALARME DES PILES CA-L504A
12. CA-L504A VIDEORECORDERAUSLÖSER & BATTERIEALARM

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièces TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
Variable Resistor				
RL012		CE40684-682YA	CH V R	6.8kΩ BATT. ALARM SET
Resistor				
RL001		QRS148J-563YL	CH MG R	56kΩ 1/4W J
RL003		" -222YL	"	2.2kΩ " "
RL004		" -563YL	"	56kΩ " "
RL011		" -823YL	"	82kΩ " "
RL013		" -822YL	"	8.2kΩ " "
RL021		" -271YL	"	270Ω " "
RL022		" -271YL	"	" " "
RL023		" -680YL	"	68Ω " "
RL024		" -103YL	"	10kΩ " "
RL031		QRD161J-102	CR	1kΩ 1/6W "
RL032		" -102	"	" " "
Capacitor				
CL001		CE40622-106YM	CH AL E Cap.	10μF 16V M
CL011		" -475YM	"	4.7μF " "
CL012		QCY81HK-473YLA	CH C Cap.	0.047μF 50V K
CL021		CE40622-106YM	CH AL E Cap.	10μF 16V M
CL041		QER41AM-476M	E Cap.	47μF " "
Diode				
DL002		1S2473H	Si Diode	
DL003		MA4120(M, H)	Zener Diode	
DL041		W06A	Si Diode	
Transistor				
QL001		2SC2778 (B, C)	Chip Transistor	
QL011		2SD1030 (R)	"	
QL012		2SC2778 (C, D)	"	
I C				
ICL001		M5232L	I C	BATTERY ALARM
Miscellaneous				
		CH40323-A10	Camera Con. Base	
		A44594-002	Fuse Clip	x 2
FL001	⚠	QMF51E2-1R25S	Fuse	1.25A

13. CA-M003A MIC BOARD
13. PLAQUETTE DE MICROPHONE CA-M003A
13. CA-M003A MIKROFON-LEITERPLATTE

SYMBOL NO. / No. de symbole / SYMBOL-NR.	⚠	PART NO. / No. de la pièce / TEILE-NR.	PART NAME / Désignation de la pièce / TEILE-NAME	REMARKS / Remarques / BEMERKUNGEN		
Resistor						
RM001		QRS148J-560YL	CH MG R	56Ω	1/4W	J
RM002		" -560YL	"	"	"	"
RM003		" -682YL	"	6.8kΩ	"	"
RM004		" -682YL	"	"	"	"
RM005		" -103YL	"	10kΩ	"	"
RM006		" -103YL	"	"	"	"
Capacitor						
CM001		CE40623-105YM	CH AL E Cap.	1μF	50V	M
CM002		" -105YM	"	"	"	"
CM003		" -105YM	"	"	"	"
CM004		" -105YM	"	"	"	"
Transistor						
QM001		2SC2778 (B,C)	Chip Transistor			
QM002		"	"			
Miscellaneous						
JM001		PU55585	Mic Jack			
SWM001		CEX40366-001	Switch	STEREO/MONO SELECT		

14. CA-2071A PREAMP BOARD
14. PLAQUETTE DE PREAMPLIFICATEUR CA-2071A
14. CA-2071A VORVERSTÄRKER-LEITERPLATTE

SYMBOL NO. / No. de symbole / SYMBOL-NR.	⚠	PART NO. / No. de la pièce / TEILE-NR.	PART NAME / Désignation de la pièce / TEILE-NAME	REMARKS / Remarques / BEMERKUNGEN		
Resistor						
R2001		QRD142J-225S	C R	2.2MΩ	1/4W	J
R2002		" -824S	"	820kΩ	"	"
R2003		QRS148J-151YL	CH MG R	150Ω	"	"
R2004		" -471YL	"	470Ω	"	"
R2005		" -152YL	"	1.5kΩ	"	"
R2006		" -152YL	"	"	"	"
R2007		" -102YL	"	1kΩ	"	"
R2008		" -332YL	"	3.3kΩ	"	"
R2009		" -473YL	"	47kΩ	"	"
R2010		" -332YL	"	3.3kΩ	"	"
R2011		" -183YL	"	18kΩ	"	"
R2012		" -184YL	"	180kΩ	"	"
R2013		" -273YL	"	27kΩ	"	"
R2014		" -101YL	"	100Ω	"	"
R2015		" -222YL	"	2.2kΩ	"	"
R2016		" -822YL	"	8.2kΩ	"	"
R2017		" -564YL	"	560kΩ	"	"
R2018		" -333YL	"	33kΩ	"	"
R2019		" -470YL	"	47Ω	"	"
R2020		" -470YL	"	"	"	"
R2021		" -562YL	"	5.6kΩ	"	"
Capacitor						
C2001		QCZ0210-473U	MP Cap.	0.047μF		
C2002		CE40034-336XM	CH Tan. E Cap.	33μF	6.3V	M
C2003		" -336XM	"	"	"	"
C2004		" -336WM	"	"	"	"
C2005		QCY81HK-473YLA	CH C Cap.	0.047μF	50V	K
C2006		CE40713-475WM	CH Tan. E Cap.	4.7μF	10V	M
C2007		CE40036-474WM	"	0.47μF	35V	"
C2008		CE40035-106WM	"	10μF	16V	"
C2009		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
C2010		QCS81HJ-1R5YLA	"	1.5pF	"	J
C2011		CE40345-200YX	CH Trimmer Cap.	20pF		
C2012		QCY81HK-473YLA	CH C Cap.	0.047μF	"	K
Coil						
L2001		CJ39609-00A	Percival Coil			
L2002		CE40344-101YL	Chip Inductor	100μH		
Transistor						
Q2001		2SK316 (Q)	F E T			
Q2002		2SA1022 (C)	Chip Transistor			
Q2003		2SC2404 (D)	"			
Q2004		"	"			
Q2005		2SC2778 (C)	"			
Q2006		2SB709 (P-R)	"			

15. CA-6071A EVF BOARD
15. PLAQUETTE DU VISEUR ELECTRONIQUE CA-6071A
15. CA-6071A LEITERPLATTE DES ELEKTRONISCHEN SUCHERS

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièces TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Variable Resistor						
R6834		CE40624-105A	V R	1MΩ		
R6837		" -222A	"	2.2kΩ		
R6841		" -472A	"	4.7kΩ		
R6842		A76225-205A	"	2MΩ		
Resistor						
R6802		QRS148J-102YL	CH MG R	1kΩ	1/4W	J
R6803		" -102YL	"	"	"	"
R6805		" -102YL	"	"	"	"
R6806		" -562YL	"	5.6kΩ	"	"
R6807		" -222YL	"	2.2kΩ	"	"
R6808		" -683YL	"	68kΩ	"	"
R6809		" -102YL	"	1kΩ	"	"
R6811		ERT-D2FEL200S	Thermistor	20Ω		
R6812		QRS148J-562YL	"	5.6kΩ	"	"
R6813		" -100YL	"	10Ω	"	"
R6814		" -223YL	"	22kΩ	"	"
R6815		" -683YL	"	68kΩ	"	"
R6816		" -221YL	"	220Ω	"	"
R6817		" -471YL	"	470Ω	"	"
R6818		" -331YL	"	330Ω	"	"
R6831		" -332YL	"	3.3kΩ	"	"
R6832		" -332YL	"	"	"	"
R6833		" -333YL	"	33kΩ	"	"
R6835		" -105YL	"	1MΩ	"	"
R6836		" -684YL	"	680kΩ	"	"
R6838		" -4R7YL	"	4.7Ω	"	"
R6840		" -222YL	"	2.2kΩ	"	"
R6843		CJ39619-008	R Block			
Capacitor						
C6801		QER40JM-107M	E Cap.	100μF	6.3V	M
C6802		QEPA1HM-105M	"	1μF	50V	"
C6803		QCY81HK-152YLA	CH C Cap.	1500pF	"	K
C6804		QER41EM-475M	E Cap.	4.7μF	25V	M
C6805		QCY81HK-223YLA	CH C Cap.	0.022μF	50V	K
C6806		QCS81HJ-121YLA	"	120pF	"	J
C6807		QER40JM-226M	E Cap.	22μF	6.3V	M
C6808		" -476M	"	47μF	"	"
C6809		" -476M	"	"	"	"
C6811		QEE51VK-684M	Tan. Cap.	0.68μF	35V	K
C6812		QER40JM-476M	E Cap.	47μF	6.3V	M
C6831		QEU41AM-227M	"	220μF	10V	"
C6832		QCS81HJ-221YLA	CH C Cap.	220pF	50V	J
C6833		QCY81HK-473YLA	"	0.047μF	"	K
C6834		QETA2AM-106	E Cap.	10μF	100V	M
C6835		QEU41AM-227M	"	220μF	10V	"
C6836		" -227M	"	"	"	"
C6837		CE40036-105WM	CH Tan. E Cap.	1μF	35V	"
C6838		QEE41CK-106B	Tan. Cap.	10μF	16V	K
C6839		QFP32DG-103S	PP Cap.	0.01μF	200V	G
C6840		QCS81HJ-330YLA	CH C Cap.	33pF	50V	J
C6841		QCY32HK-152A	C Cap.	1500pF	500V	K
Transformer						
T6831	⚠	CE40681-00A	HV Block			

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièces TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN
Coil				
L6831		A49468-101U	Peaking Coil	100μH
L6832	⚠	CE40680-00A	H Lin Coil	
Diode				
D6801		MA151K	Chip Diode	
D6802		GL-1NG201	L E D	
D6803		GL-1HD201	"	
D6804		GL-1HY201	"	
D6805		MA3120(M)	Chip Zener Diode	
D6831		MA151A	Chip Diode	
D6832		MA3120(M)	Chip Zener Diode	
Transistor				
Q6802		2SB709 (P-R)	Chip Transistor	
Q6831		2SB788 (T)	Transistor	
Q6832		2SD975	"	
I C				
IC6801		AN2510S	I C	VIDEO AMP, SYNC SEP VH AMP & DRIVE
Miscellaneous		CE40678-00A	Socket Ass'y	

16. CA-8071A BIAS LIGHT BOARD
16. PLAQUETTE DE LAMPE DE POLARISATION CA-8071A
16. CA-8071A VORSPANNUNGSLICHT-LEITERPLATTE

SYMBOL NO. No. de symbole SYMBOL-NR.	⚠	PART NO. No. de la pièces TEILE-NR.	PART NAME Désignation de la pièce TEILE-NAME	REMARKS Remarques BEMERKUNGEN		
Capacitor						
C8001		QCF81HZ-473YLA	CH C Cap.	0.047μF	50V	Z
C8002		" -473YLA	"	"	"	"
Miscellaneous						
PL8001		CE40683-001	Pilot Lamp			
PL8002		" -001	"			

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